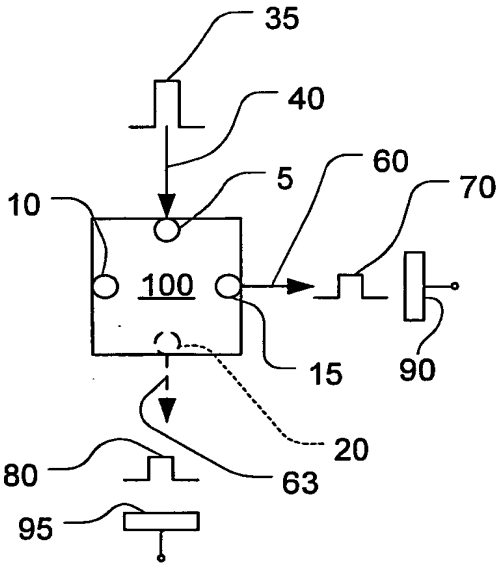


Fig. 1A

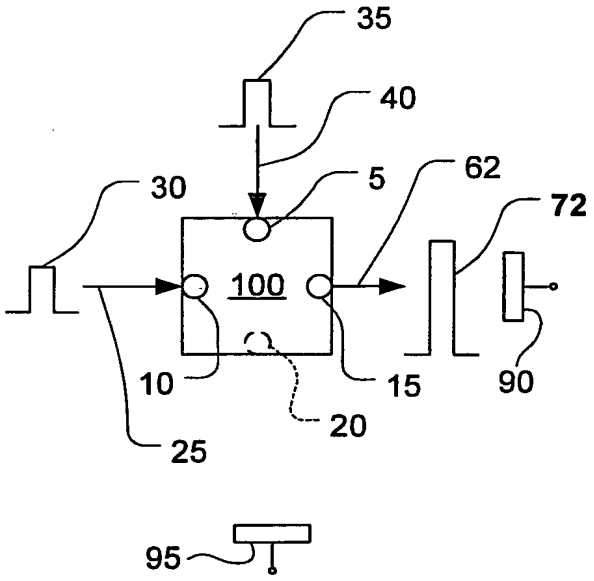


Fig. 1C

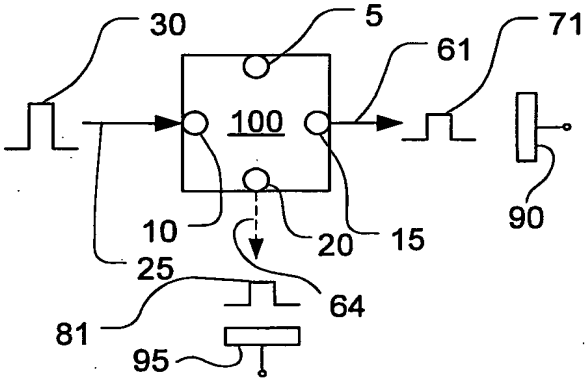


Fig. 1B

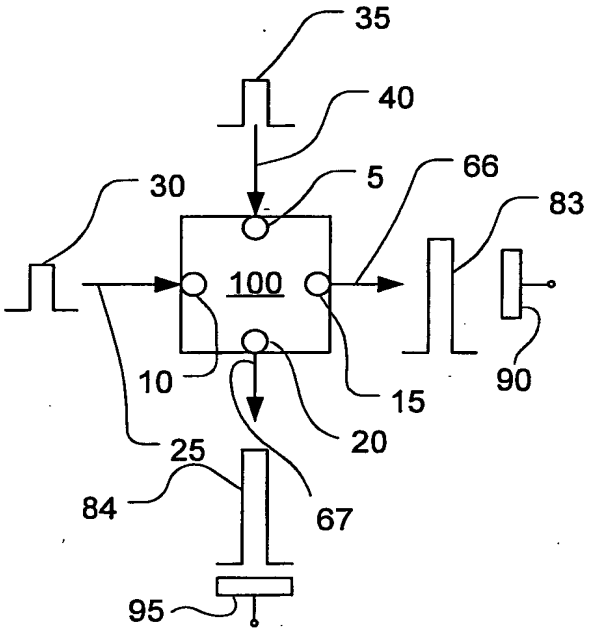


Fig. 1D

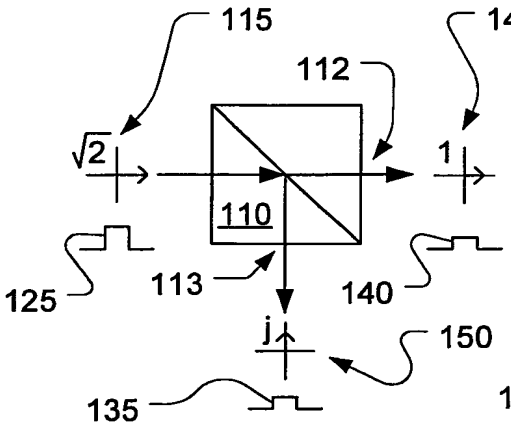
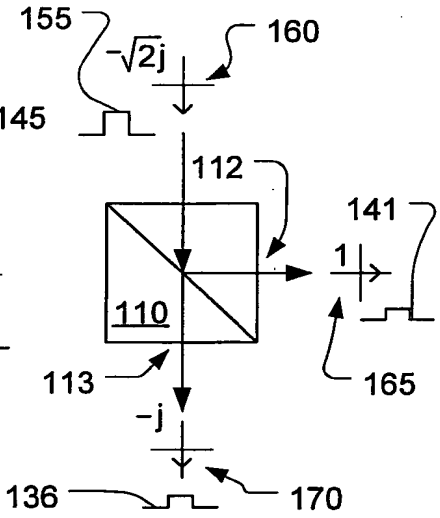


Fig. 2A



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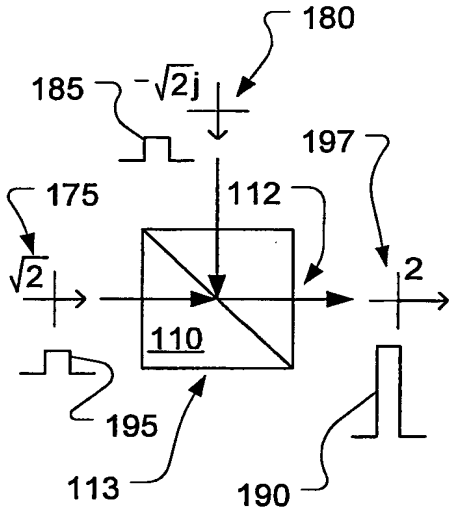

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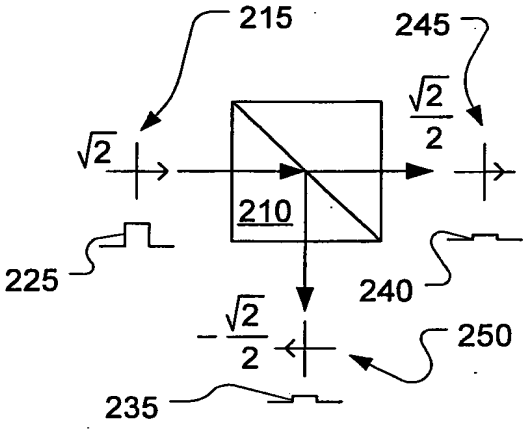
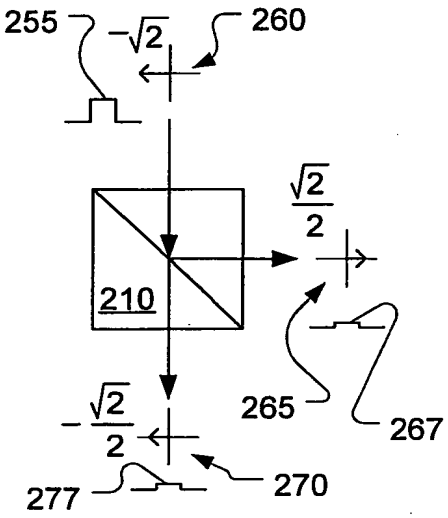


Fig. 3A



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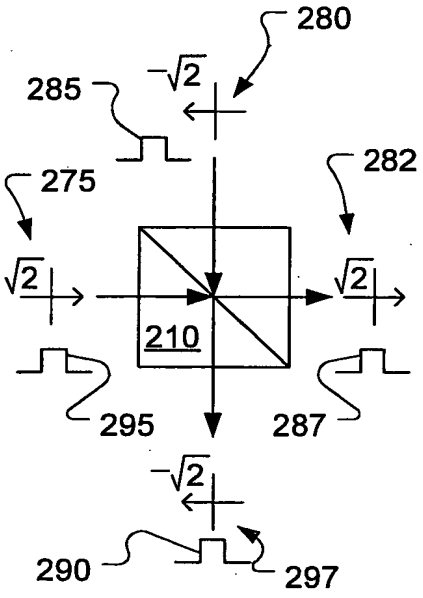

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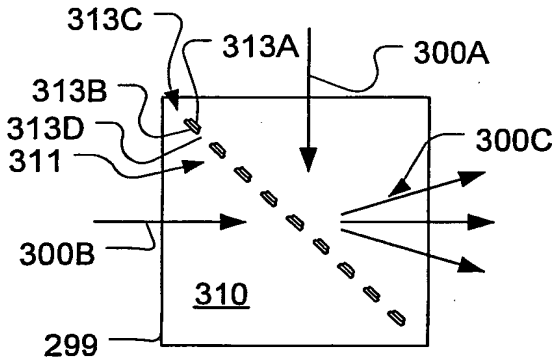
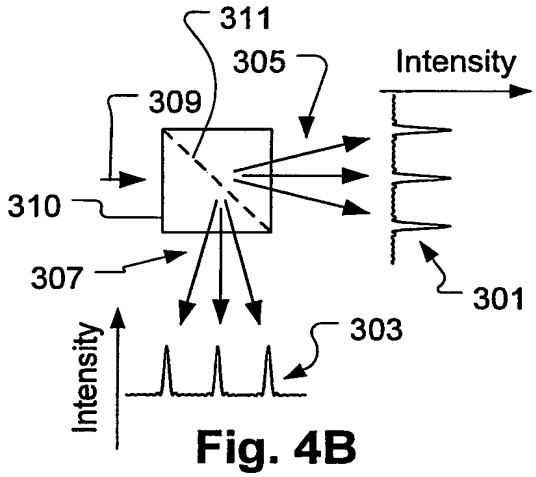


Fig. 4A



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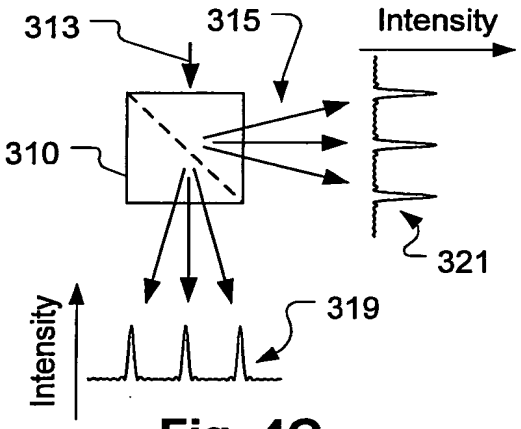

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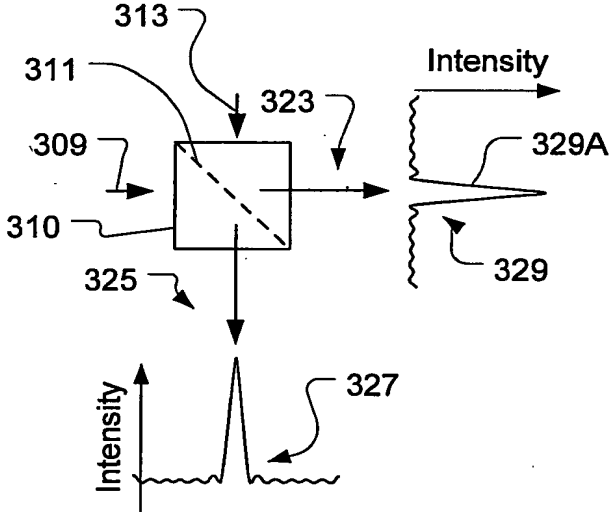


Fig. 4D

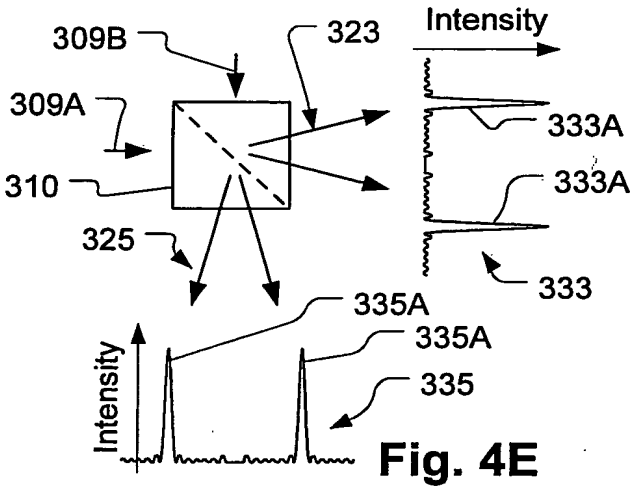


Fig. 4E

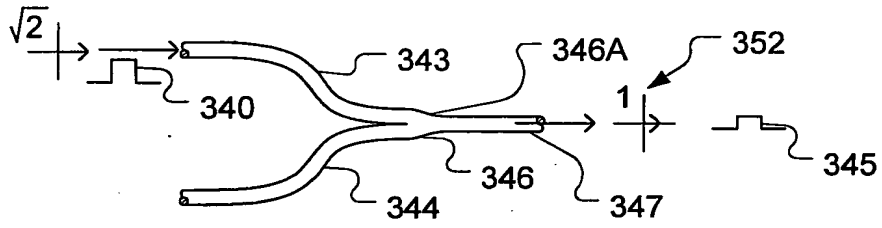


Fig. 5A

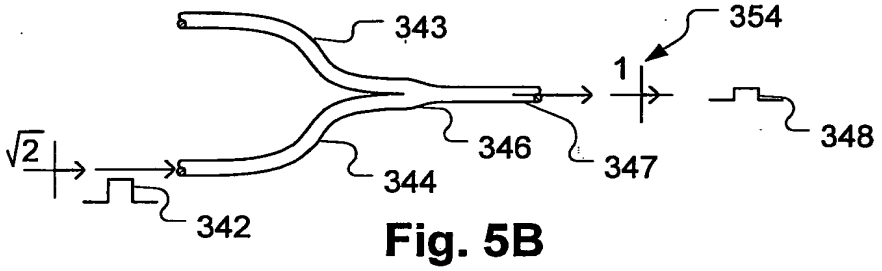


Fig. 5B

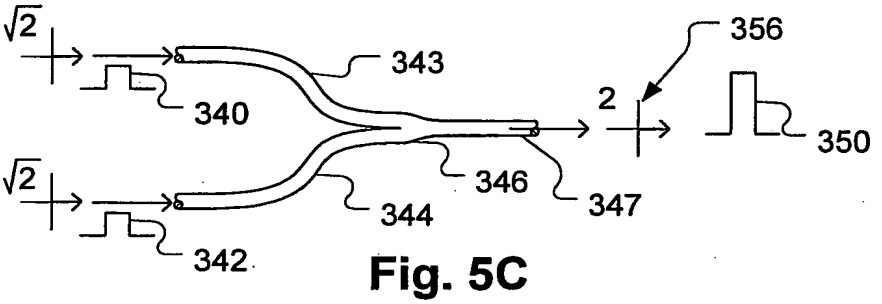


Fig. 5C

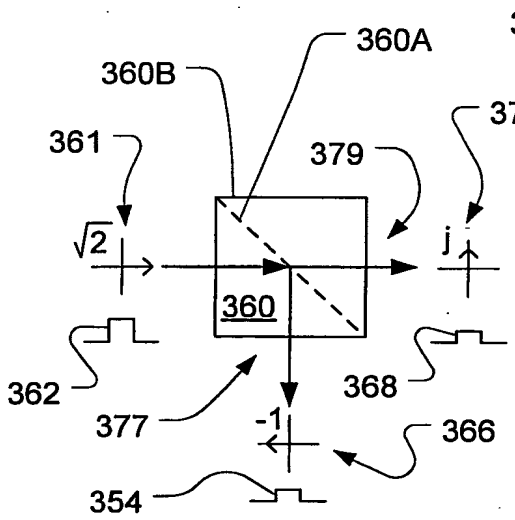


Fig. 6A

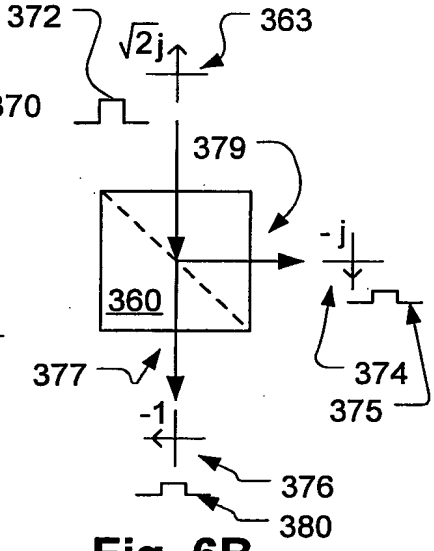


Fig. 6B

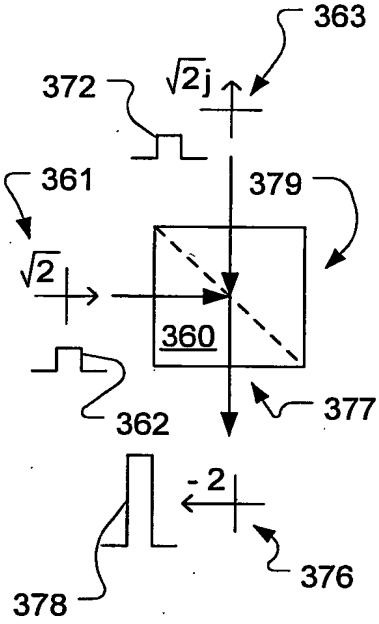


Fig. 6C

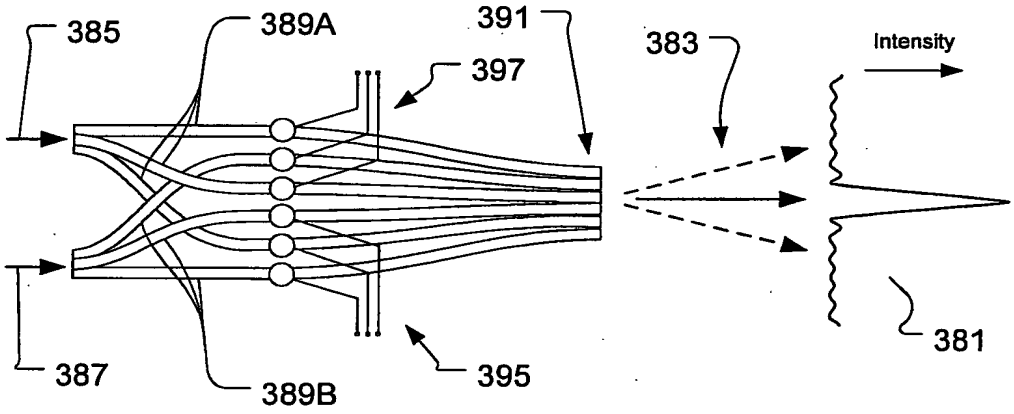


Fig. 7A

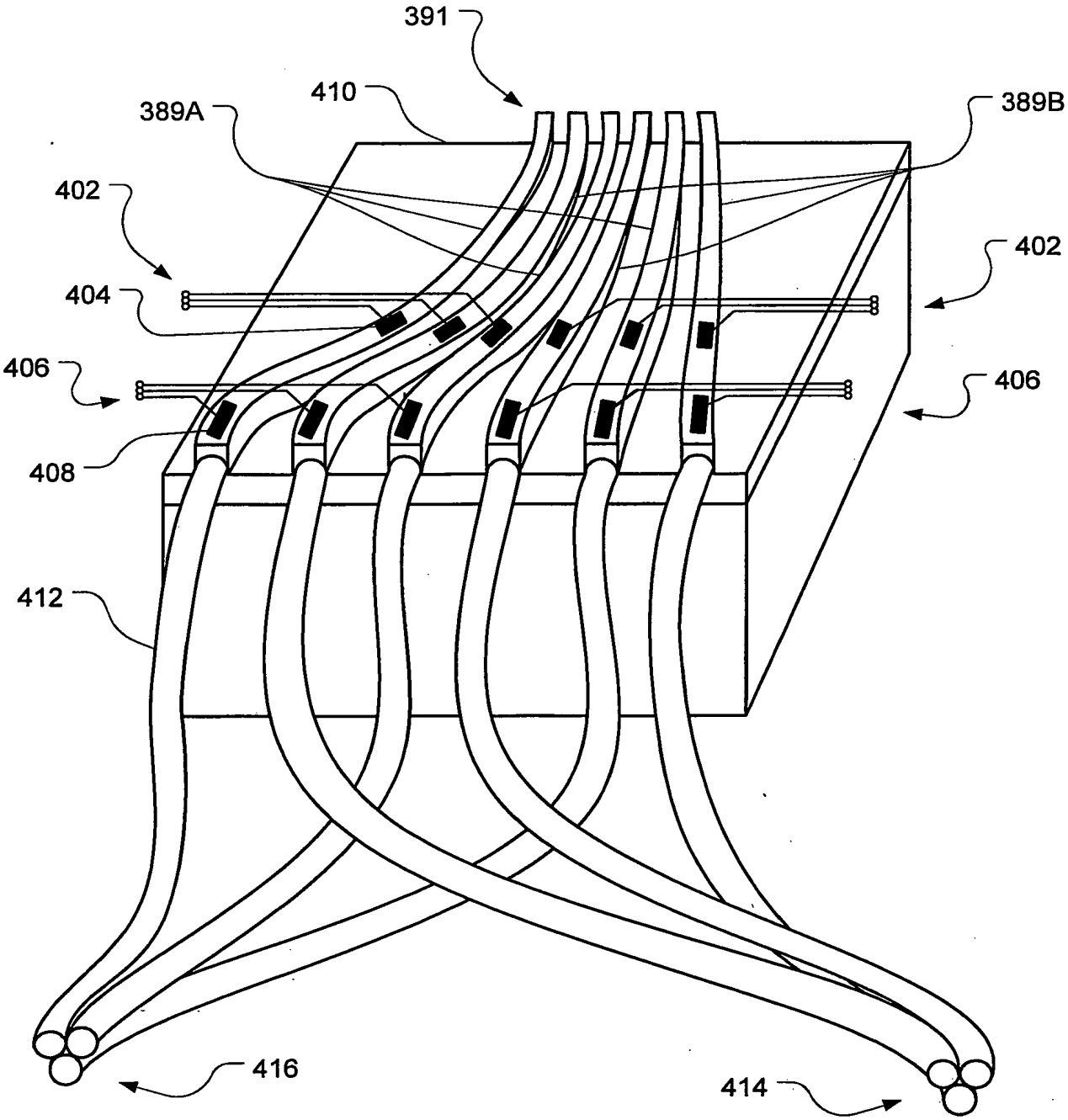


Fig. 7B

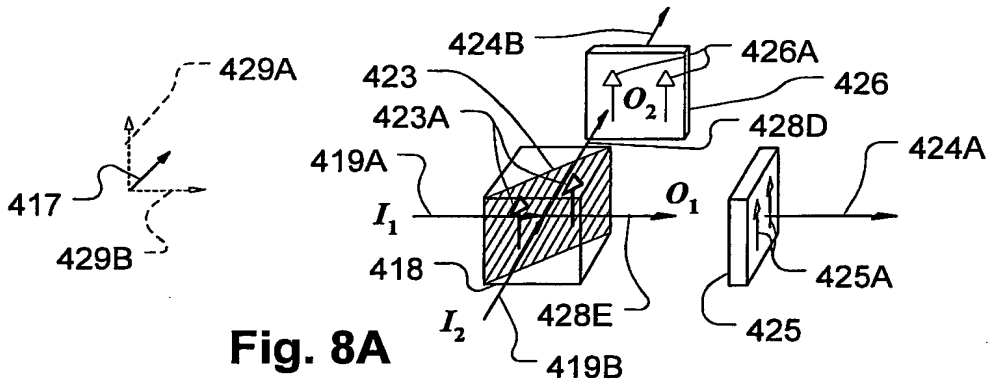


Fig. 8A

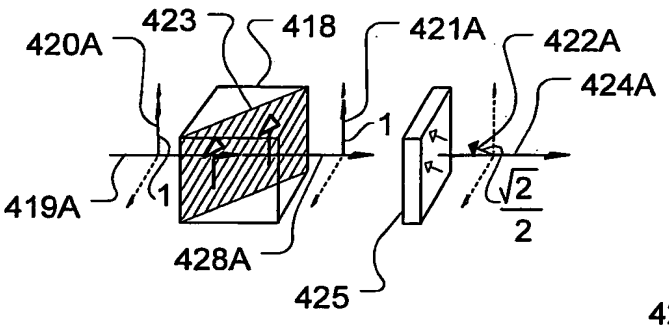
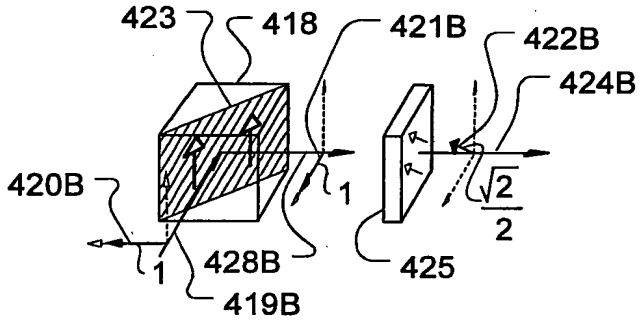


Fig. 8B



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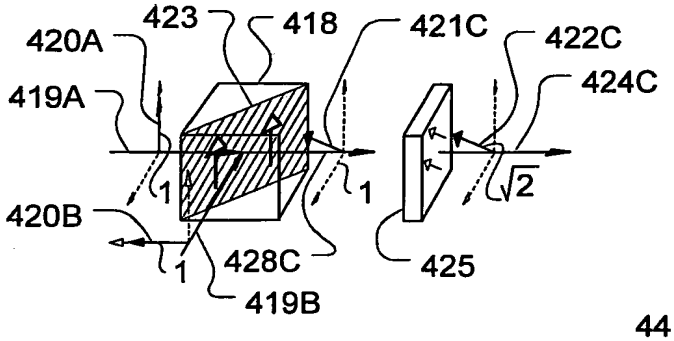
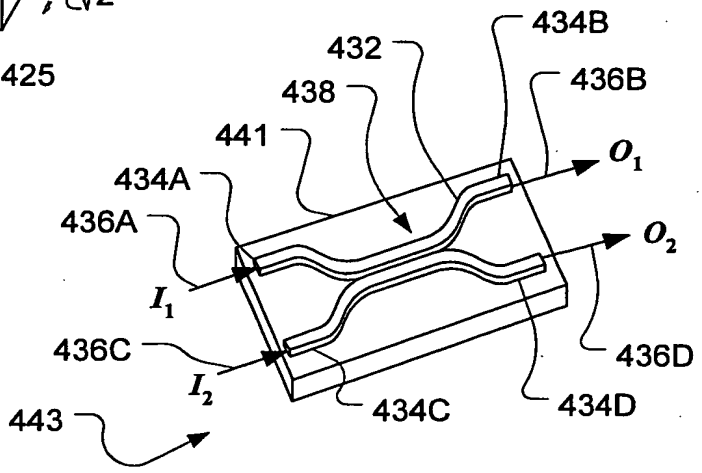


Fig. 8D



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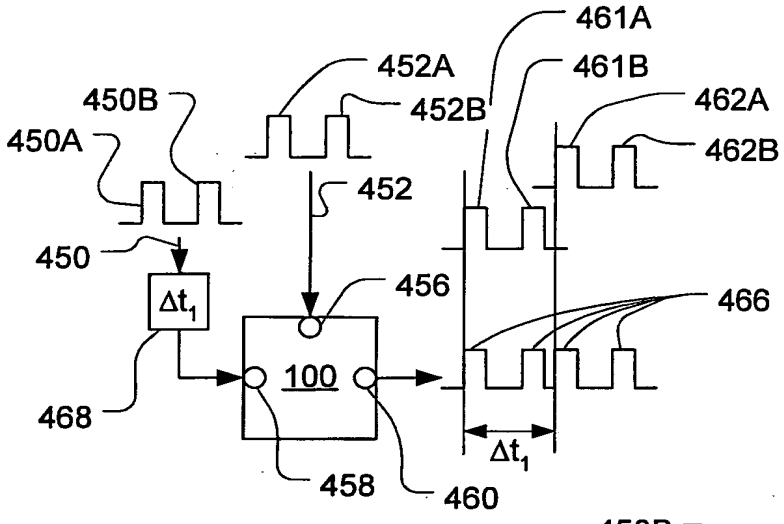
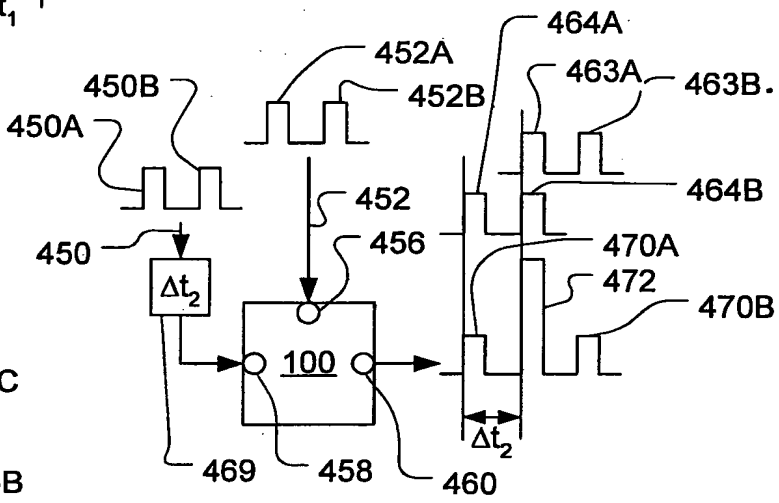


Fig. 9A



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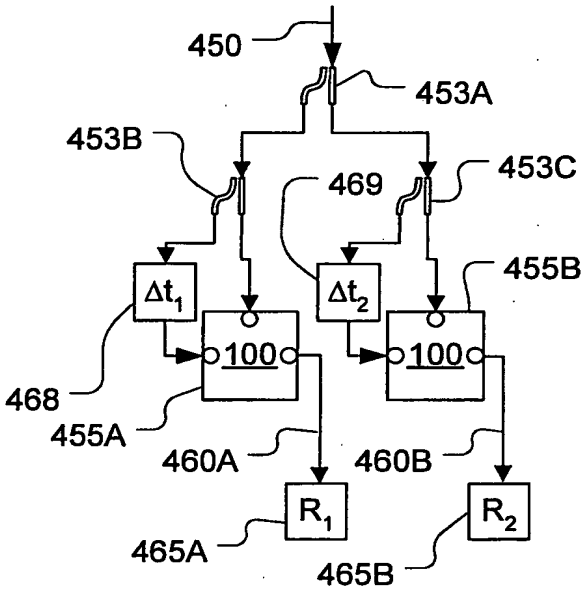

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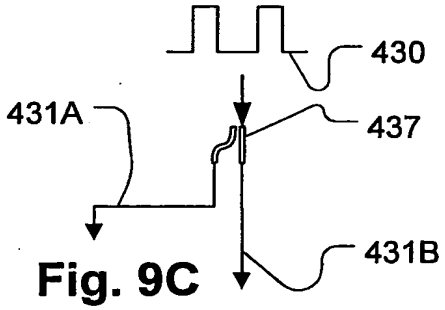

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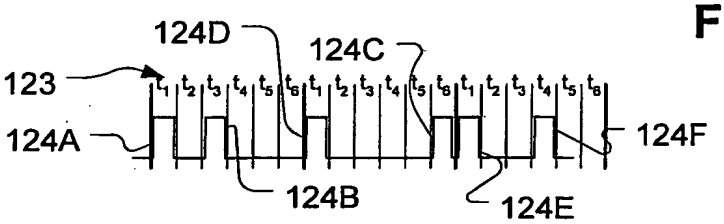

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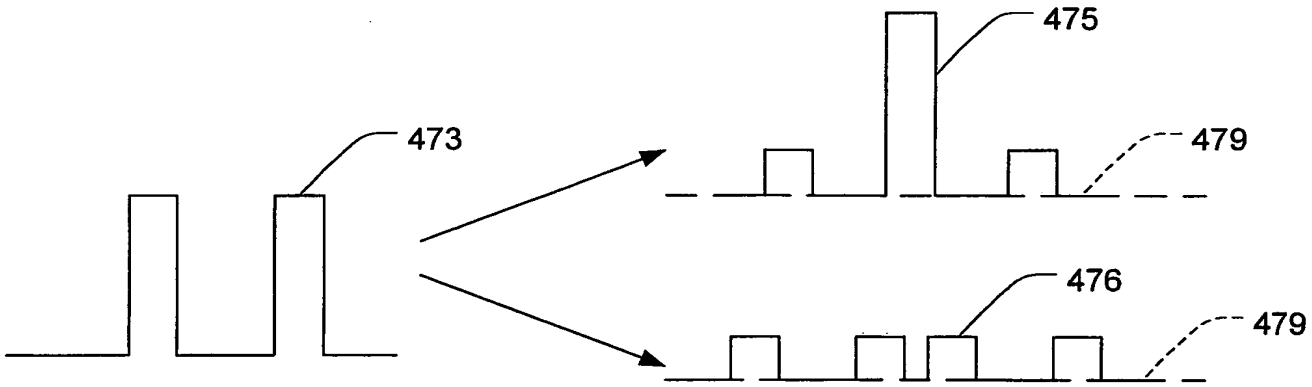

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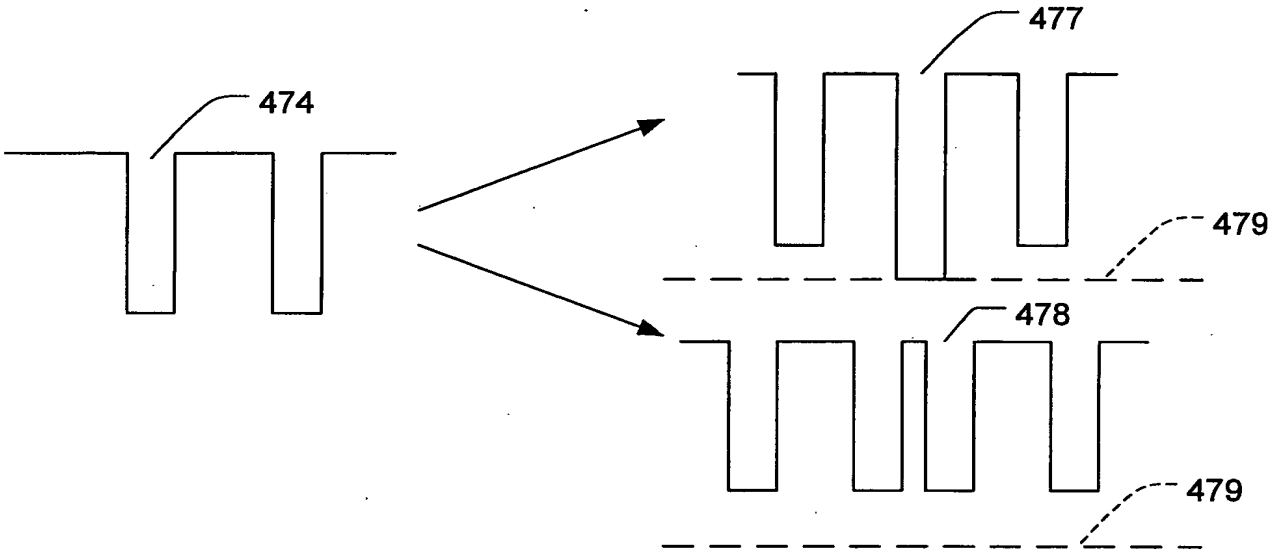
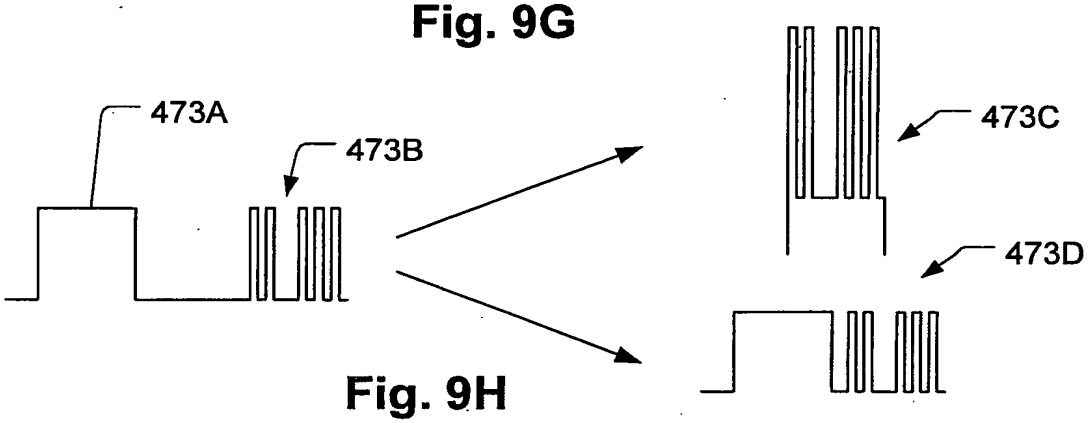


Fig. 9G



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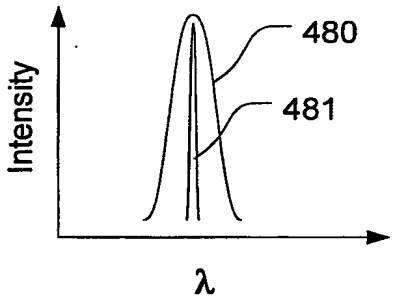


Fig. 9I

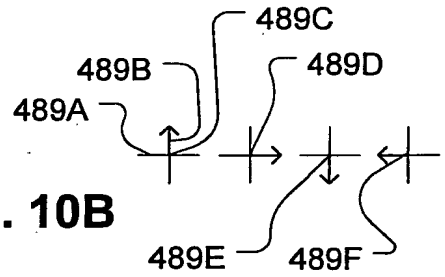


Fig. 10B

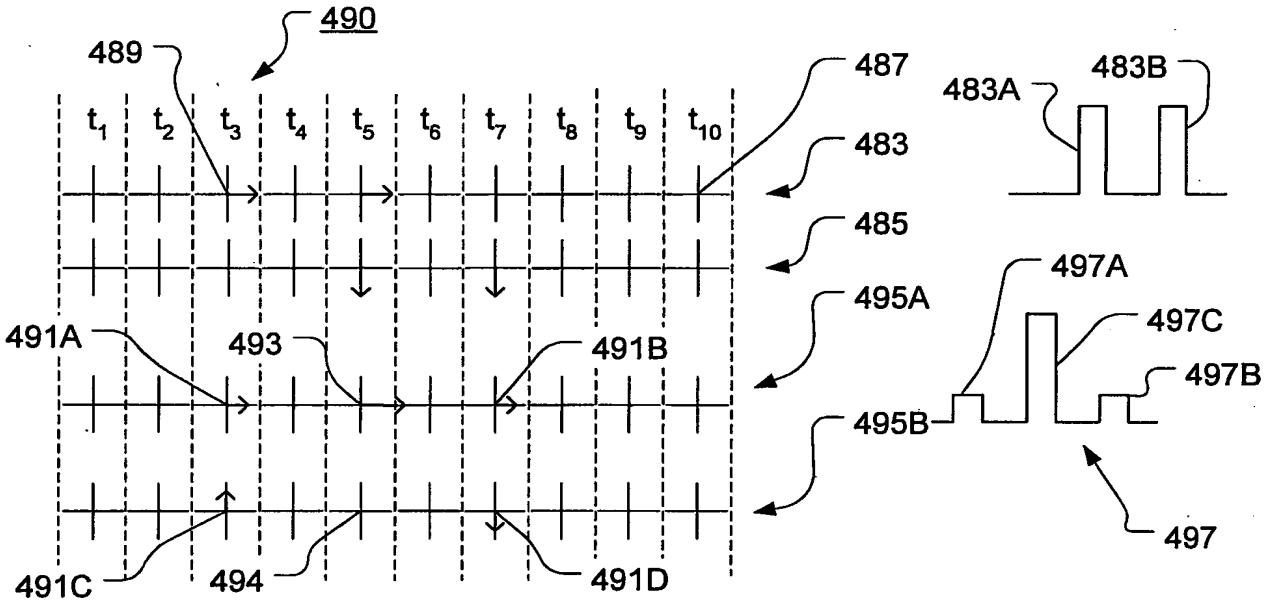


Fig. 10A

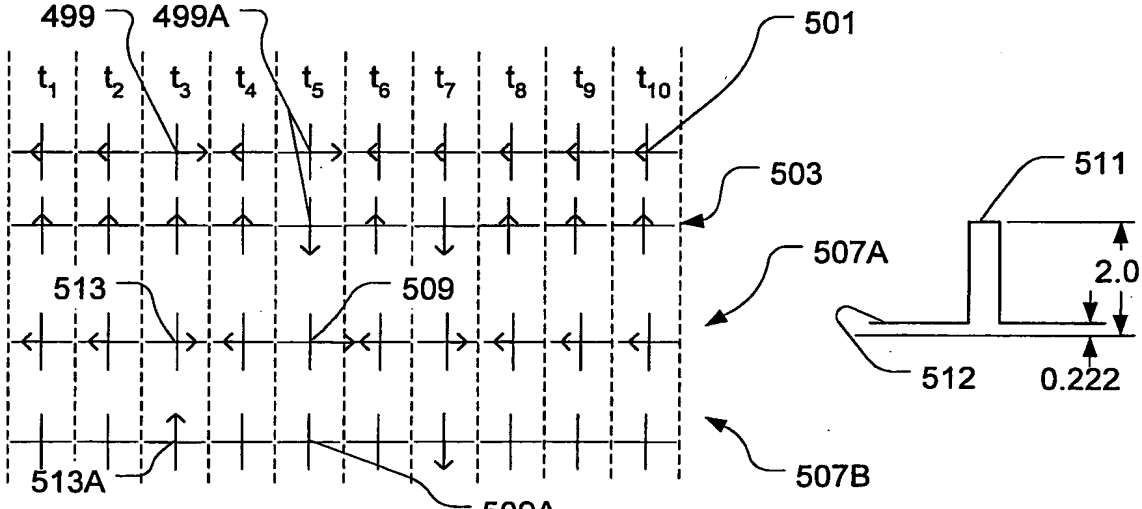


Fig. 10C

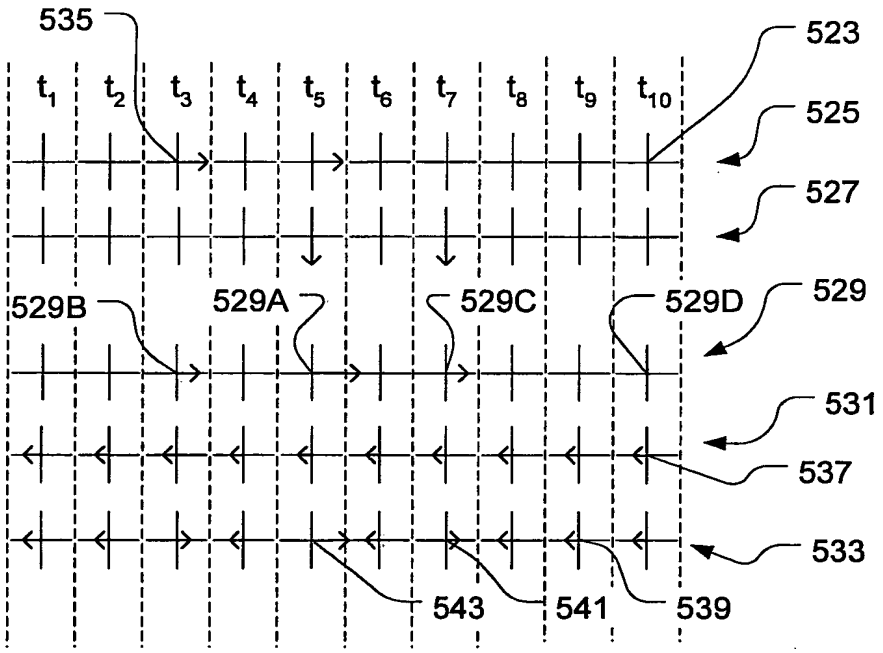
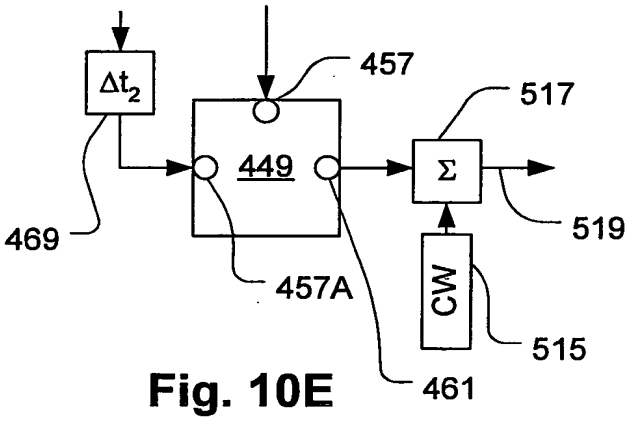


Fig. 10D



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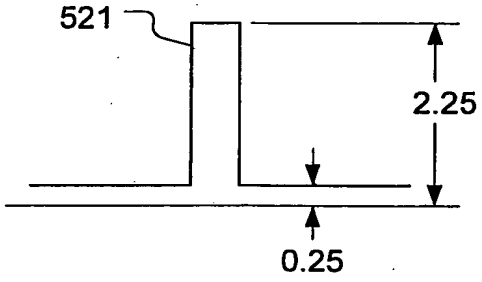

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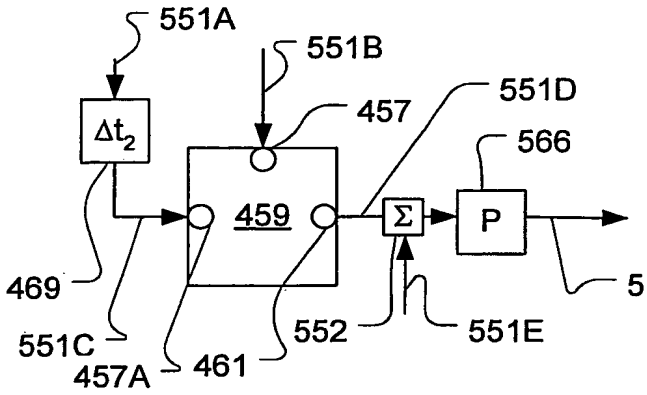


Fig. 11A

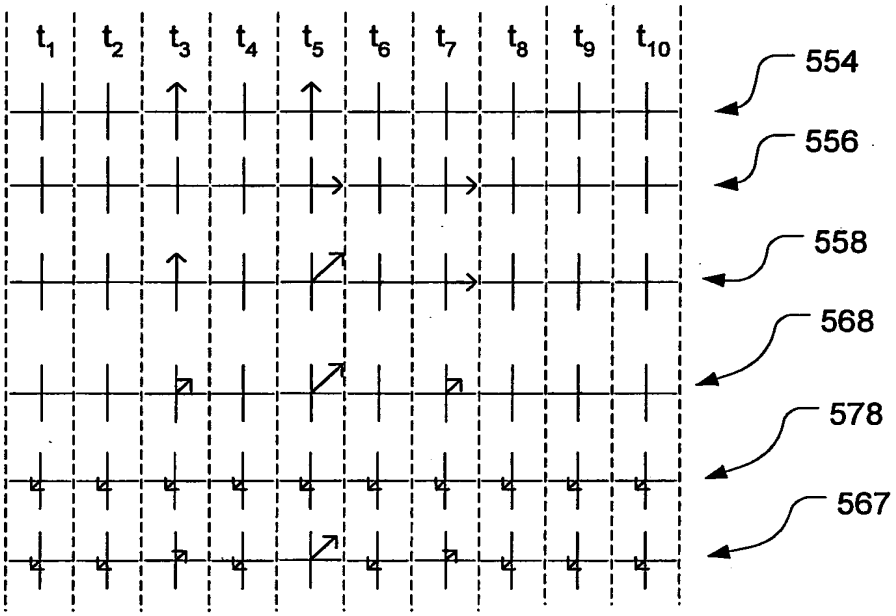


Fig. 11B

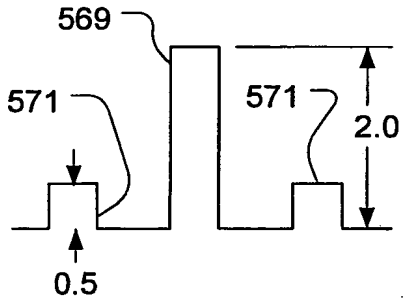


Fig. 11C

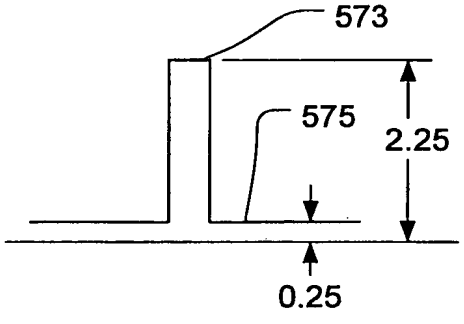


Fig. 11D

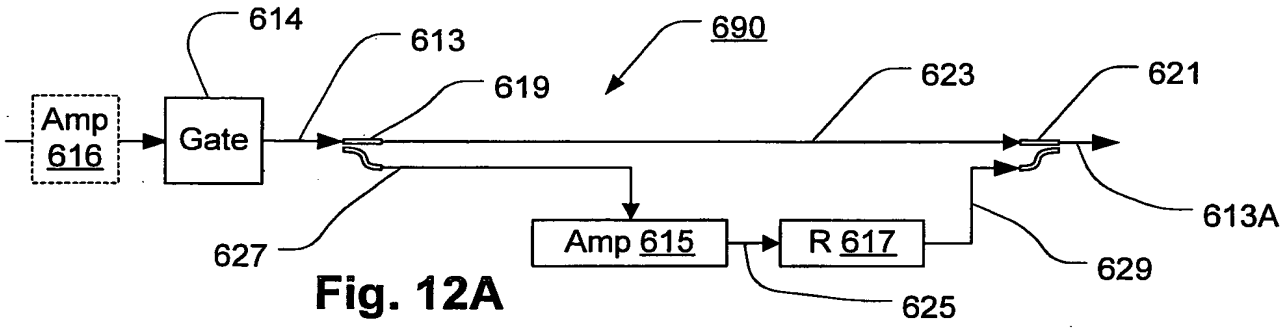
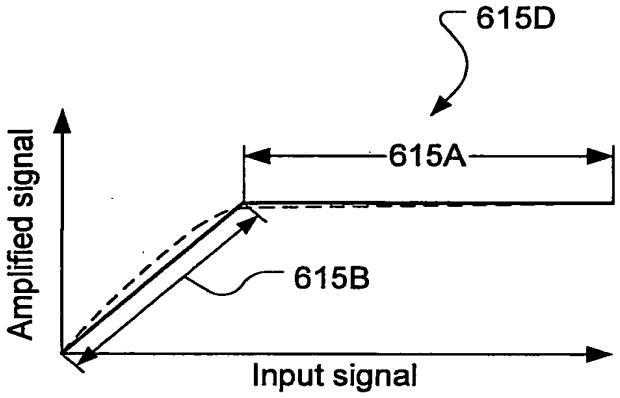


Fig. 12A



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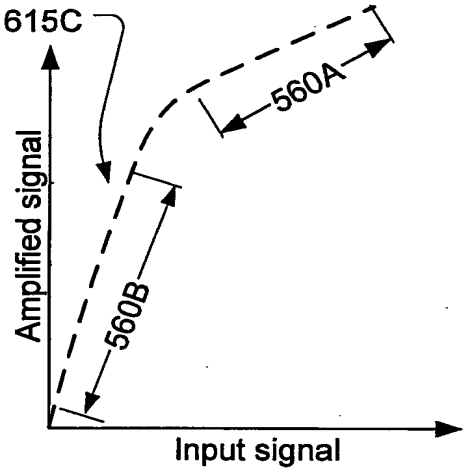

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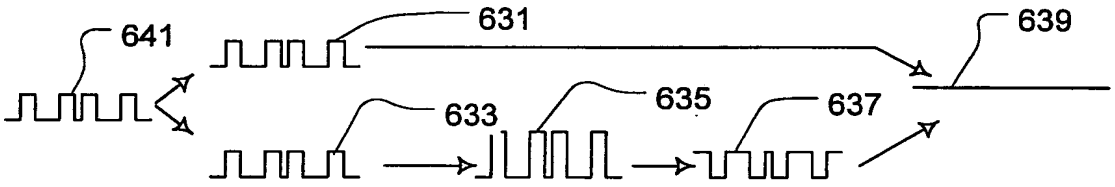

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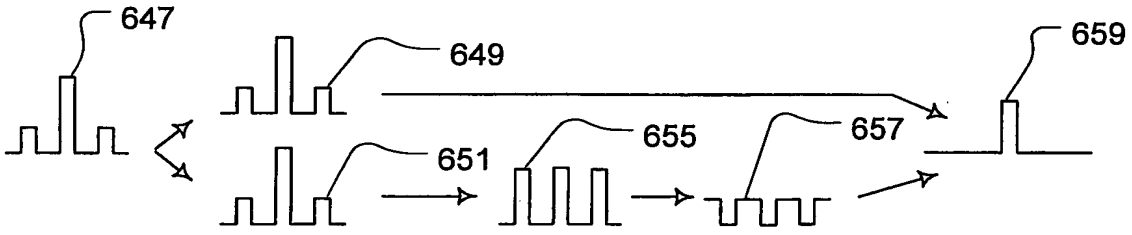

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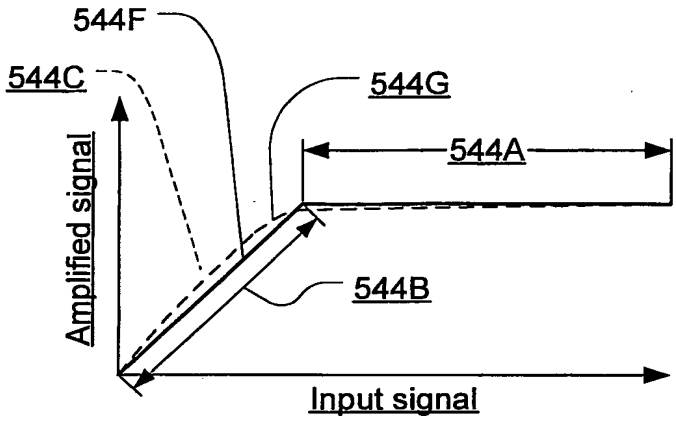

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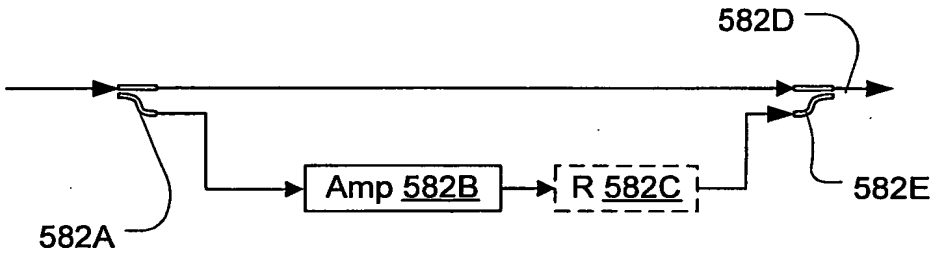


Fig. 12G

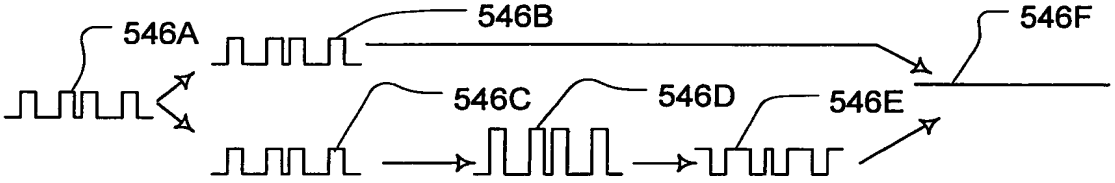


Fig. 12H

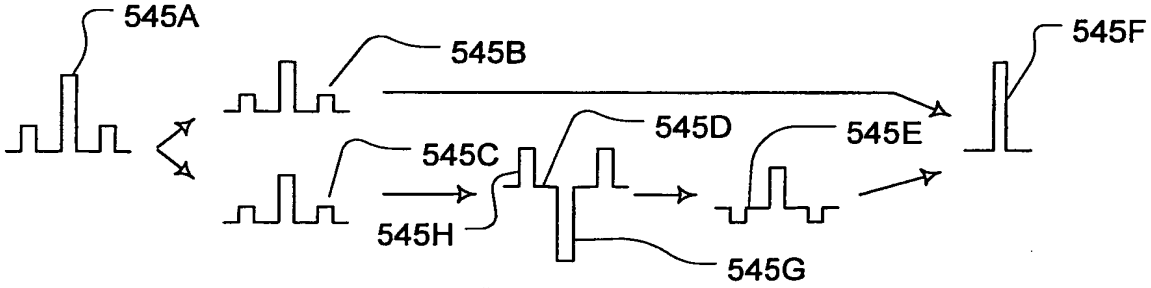


Fig. 12K

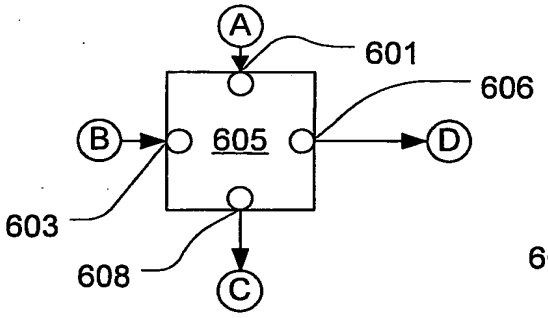


Fig. 13A

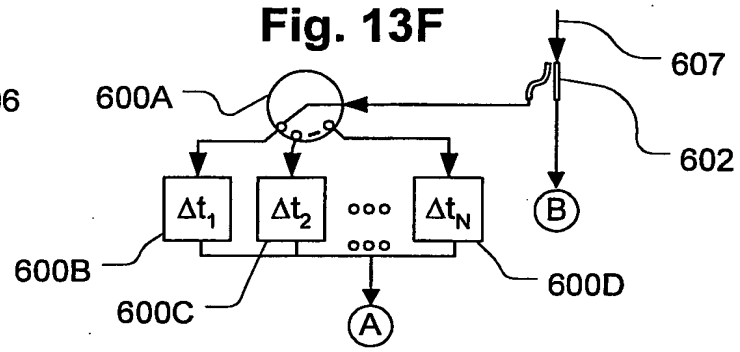


Fig. 13F

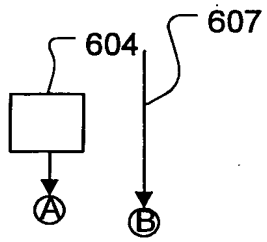


Fig. 13B

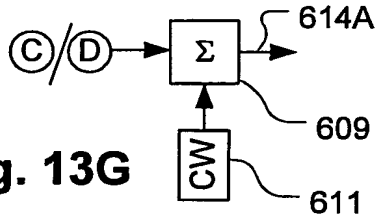


Fig. 13G

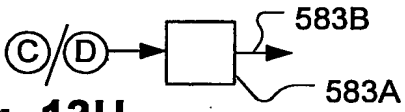


Fig. 13H

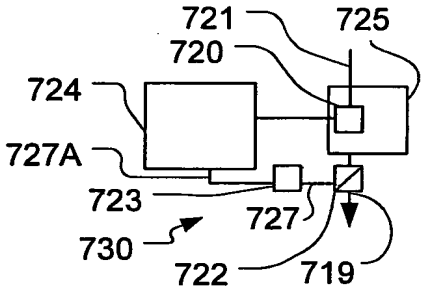


Fig. 13D

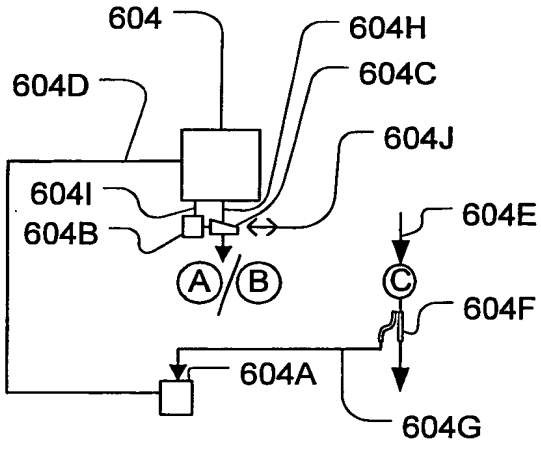


Fig. 13C

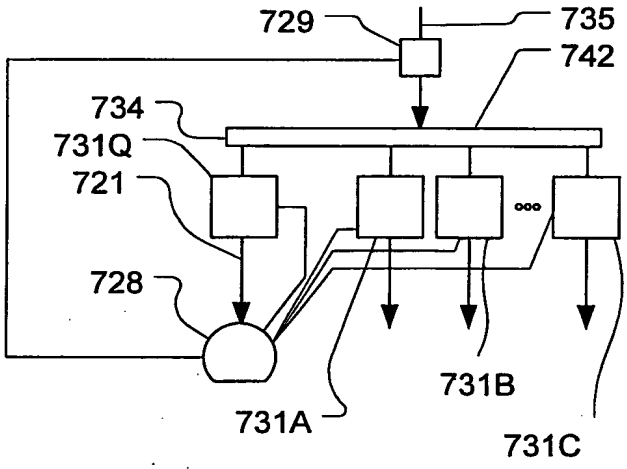


Fig. 13E

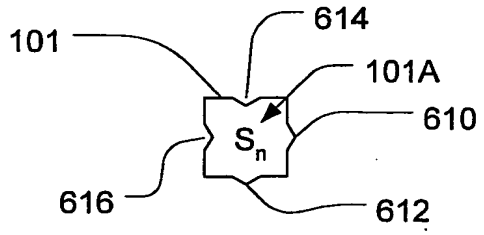


Fig. 13I

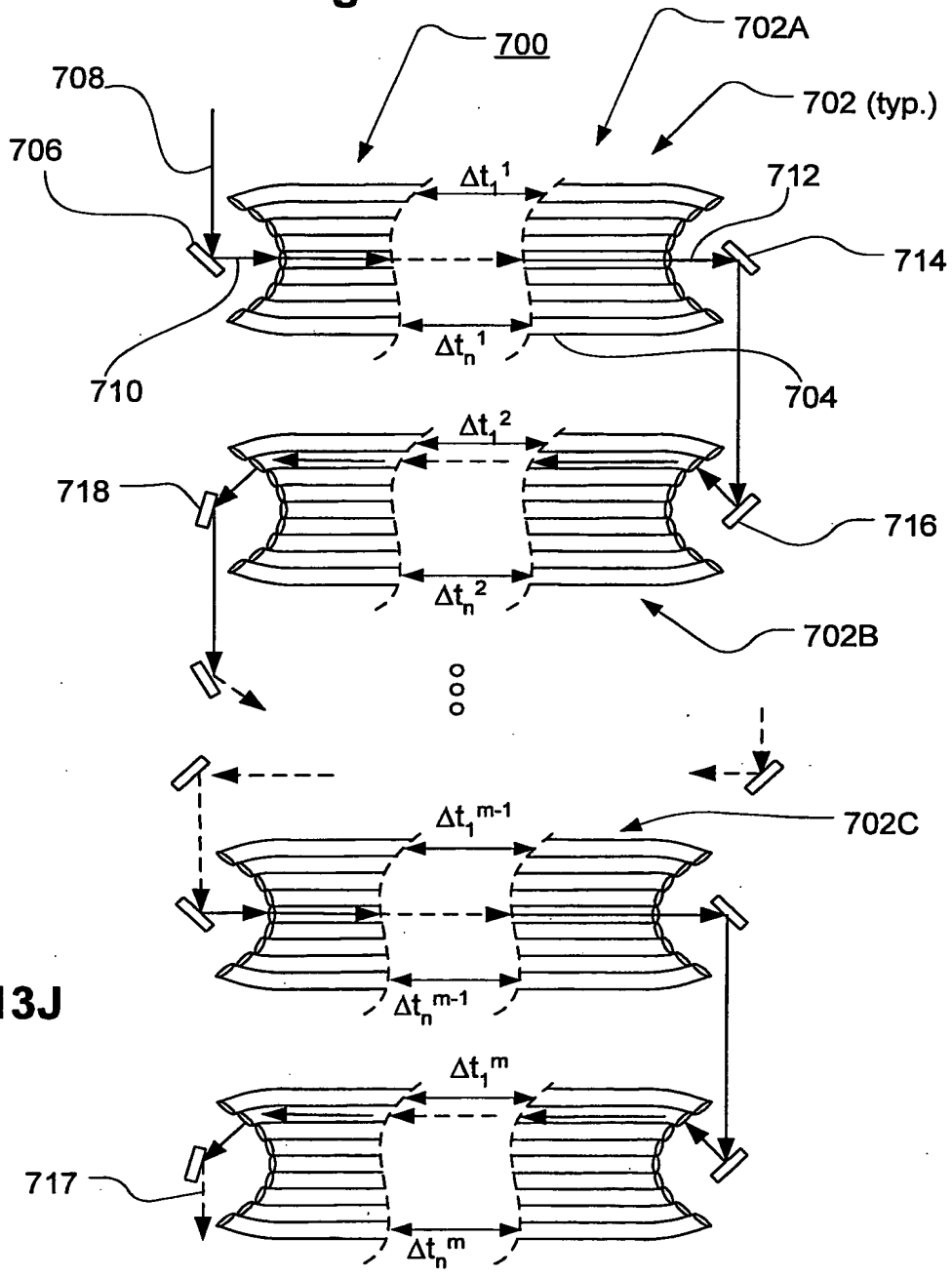
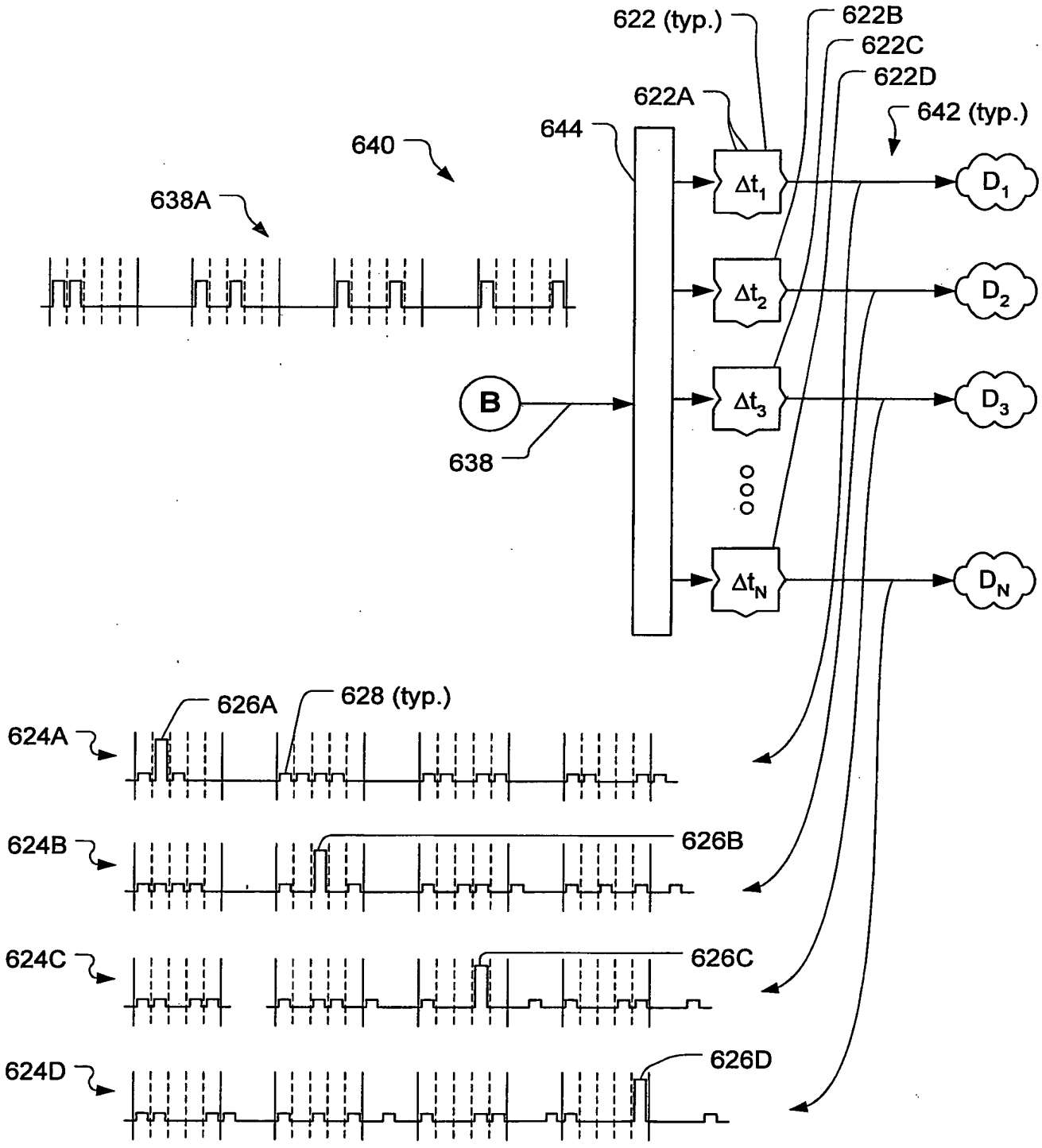


Fig. 13J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D_2
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626D

Fig. 14A

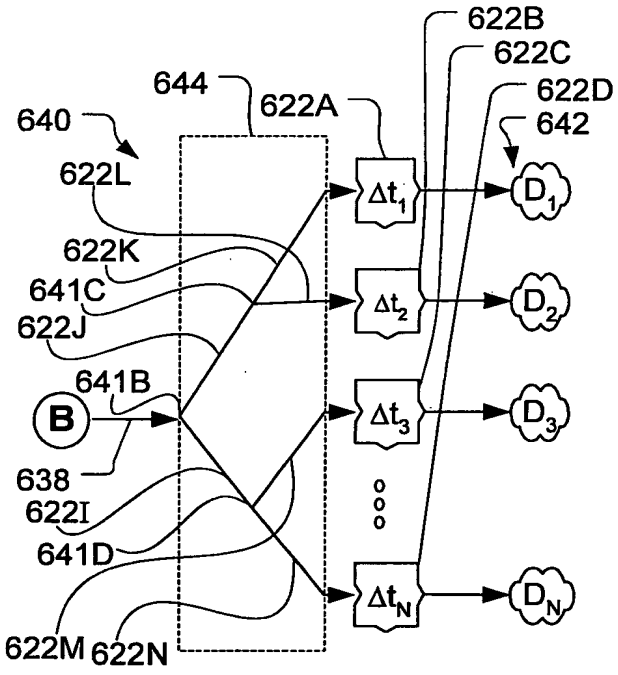


Fig. 14C

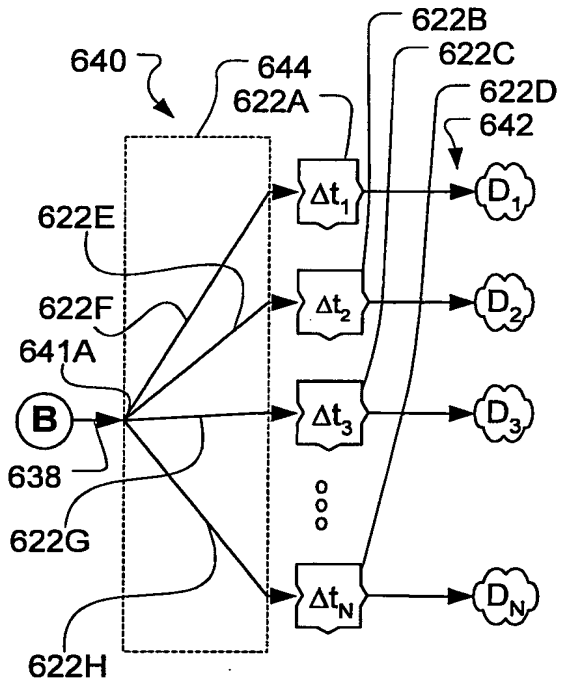


Fig. 14B

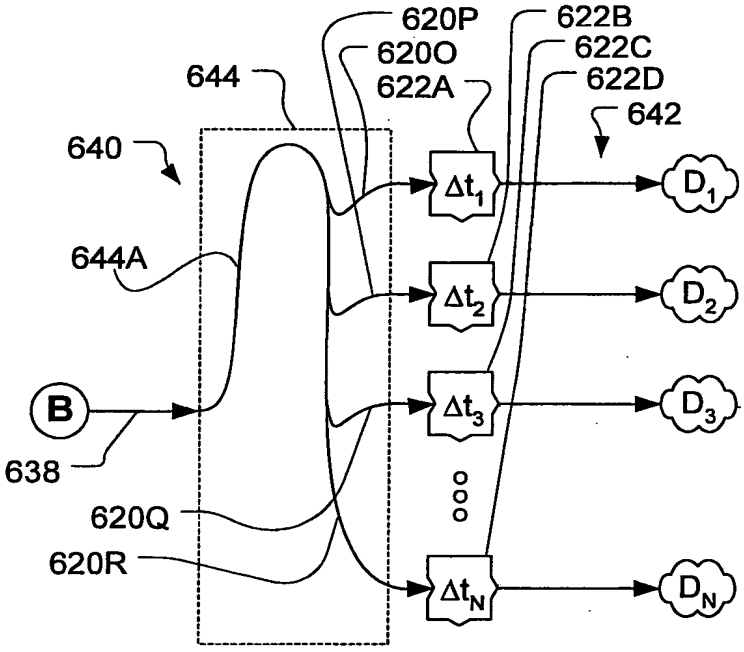


Fig. 14D

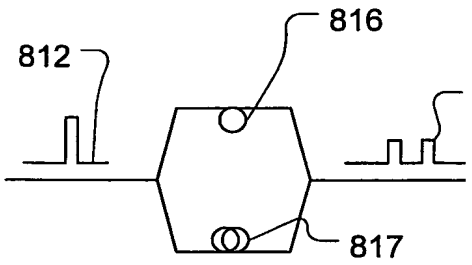


Fig. 15A

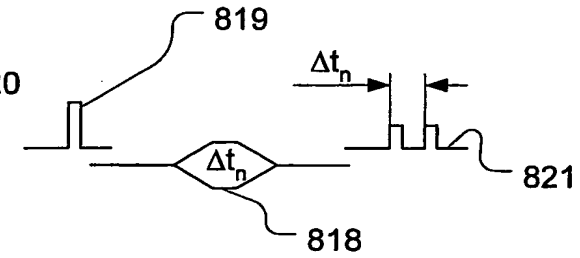


Fig. 15B

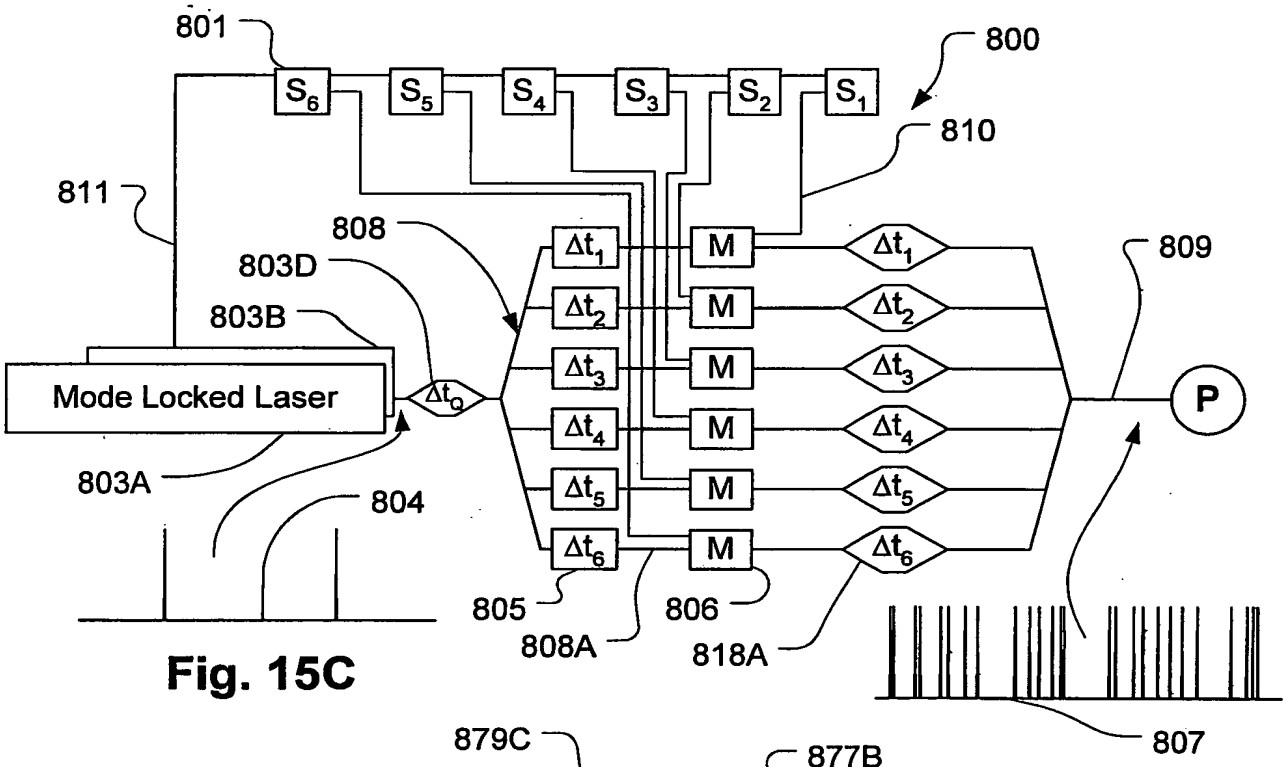


Fig. 15C

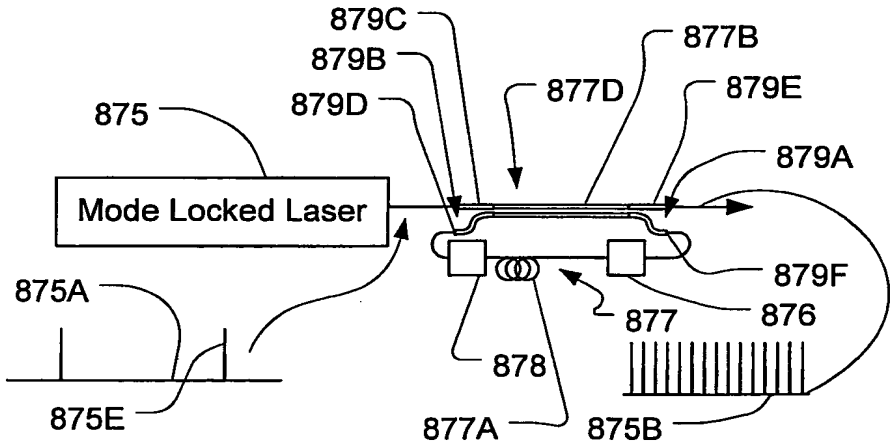


Fig. 15D

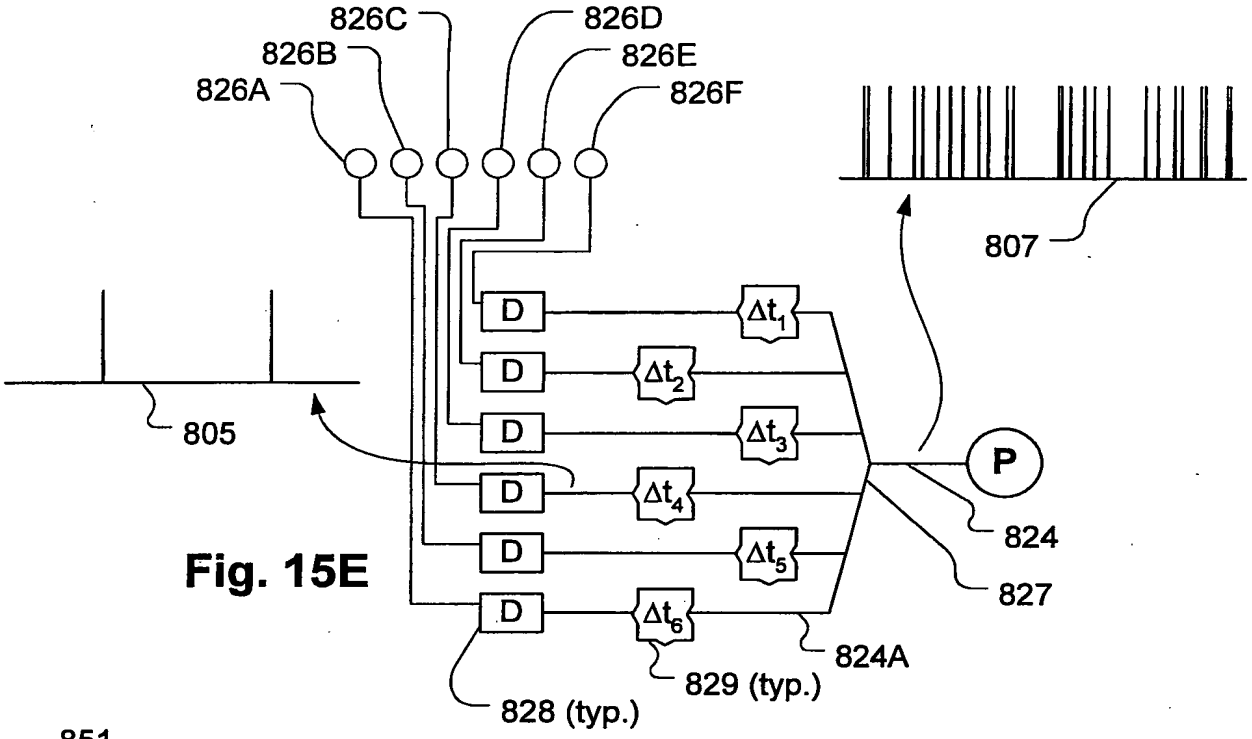


Fig. 15E

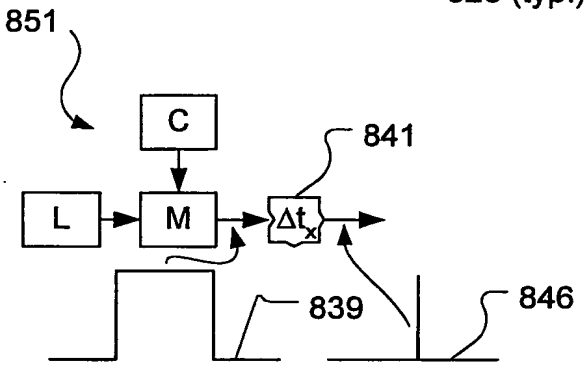


Fig. 15F

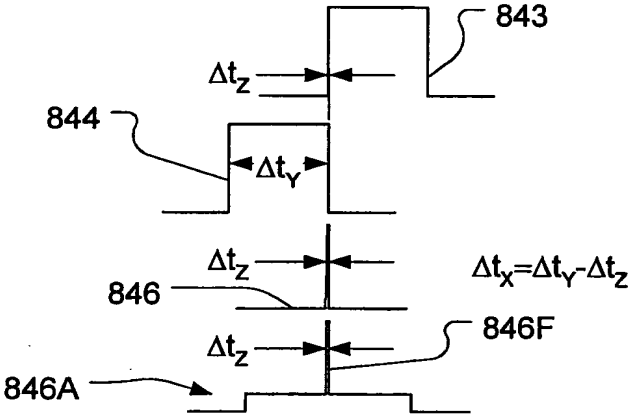


Fig. 15H

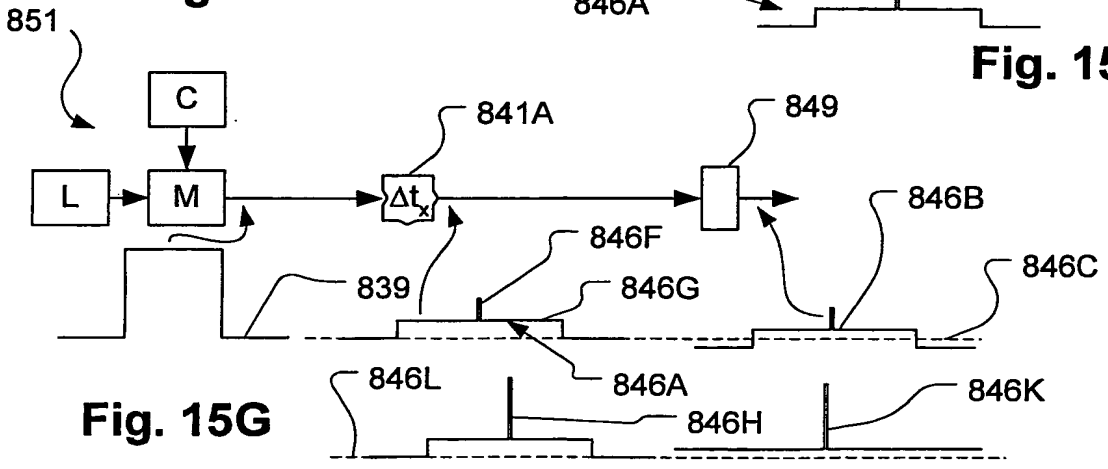


Fig. 15G

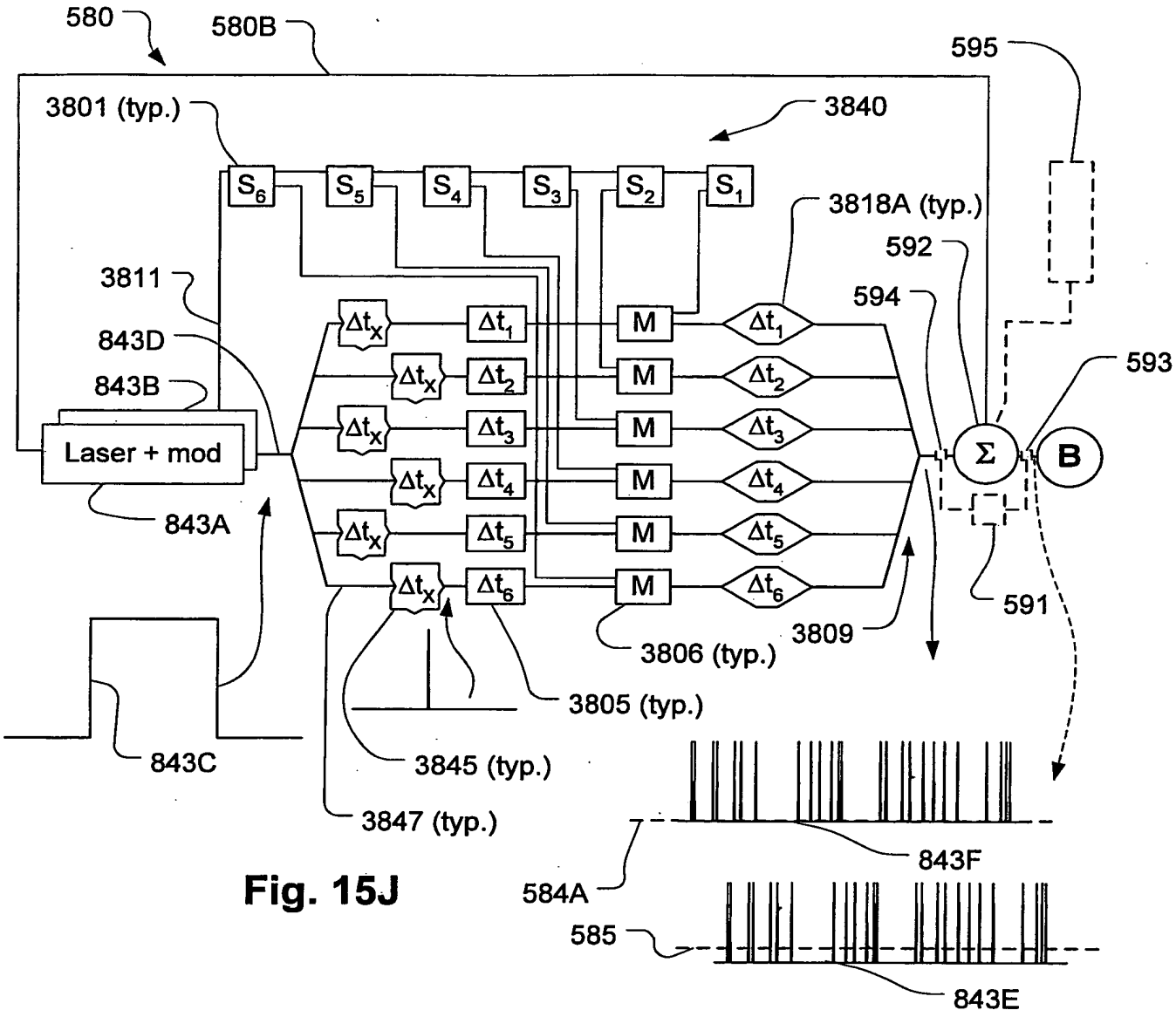


Fig. 15J

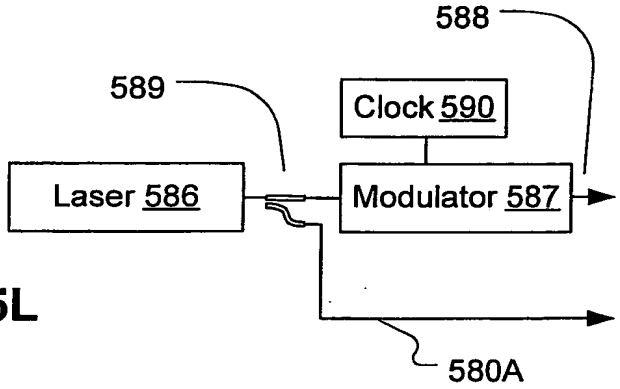


Fig. 15L

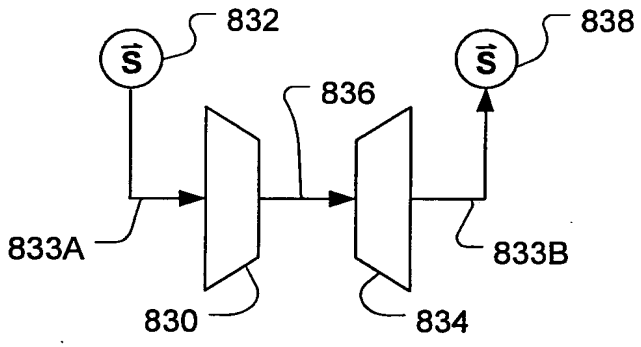


Fig. 15K

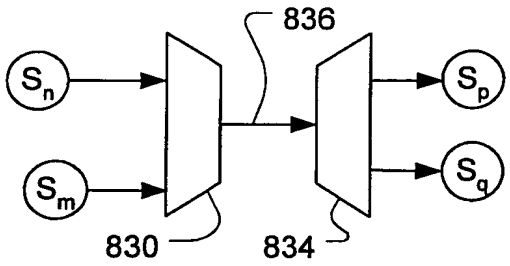


Fig. 15M

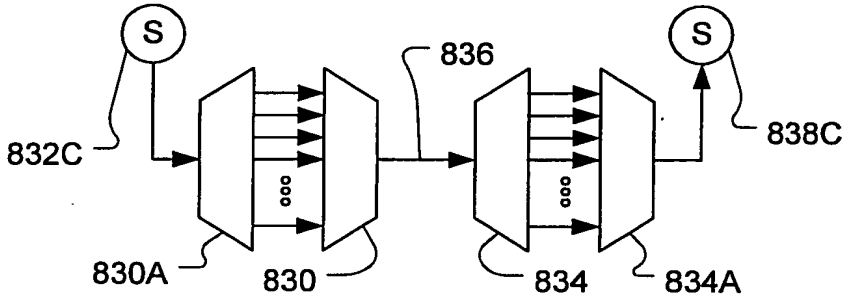


Fig. 15N

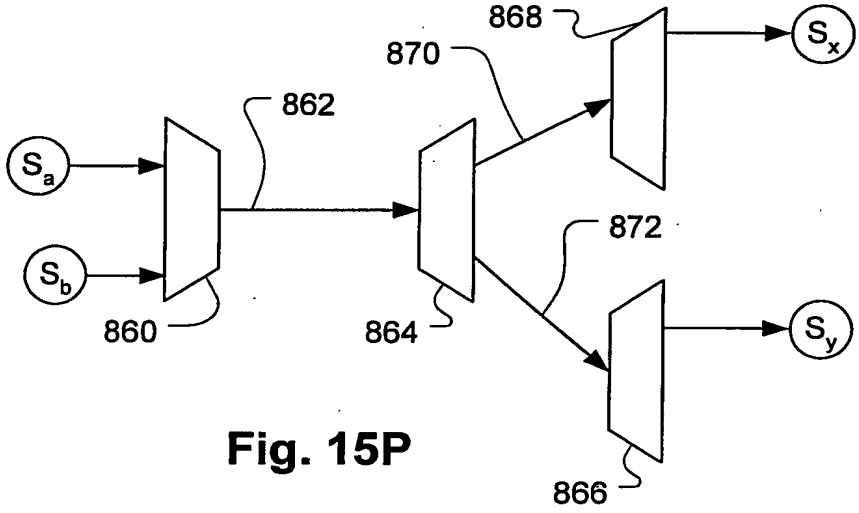


Fig. 15P

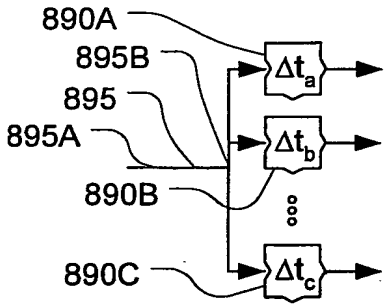
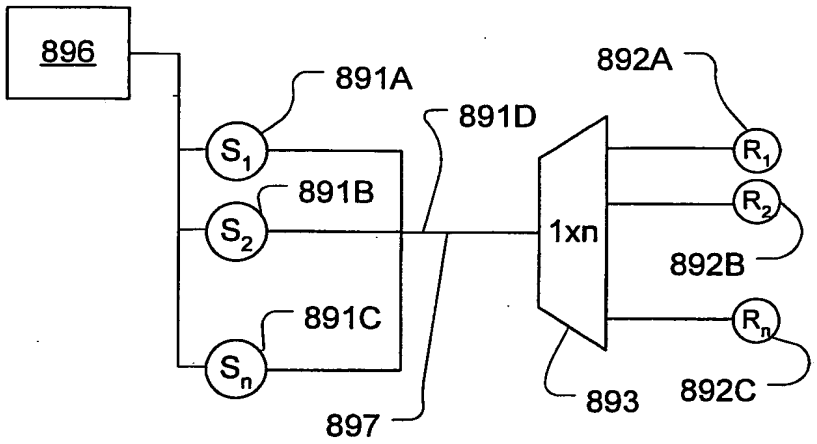


Fig. 15Q



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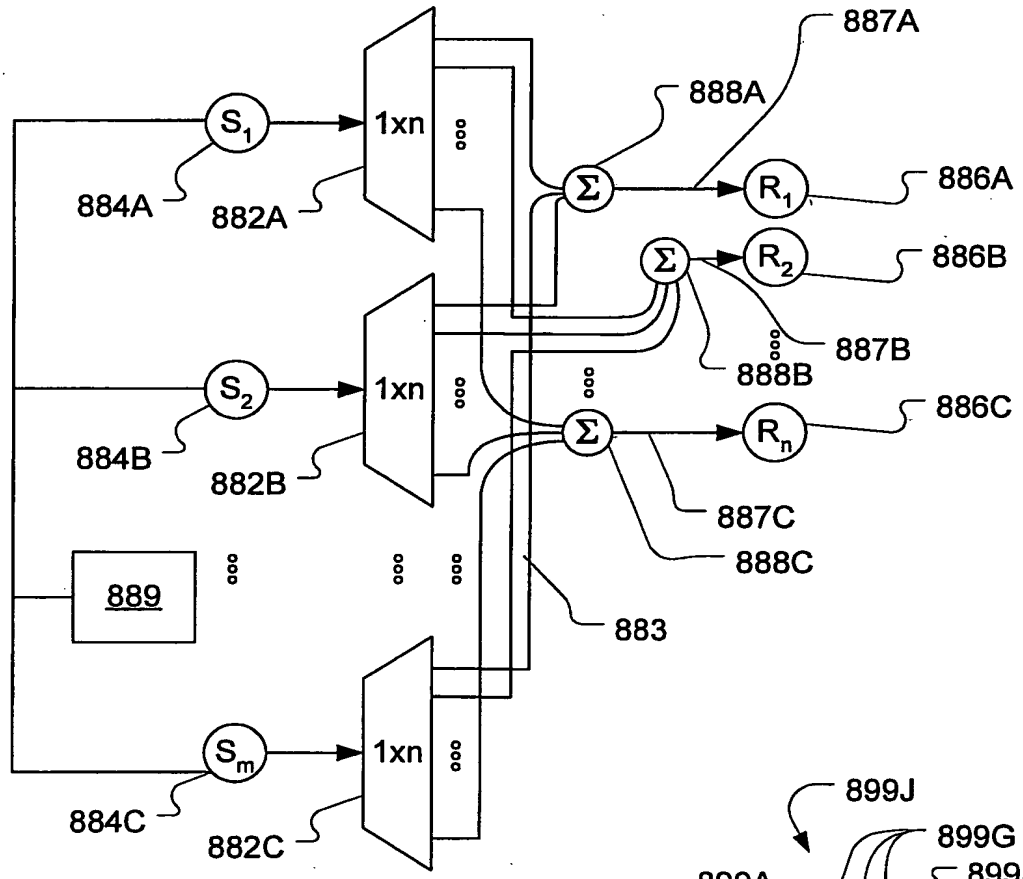
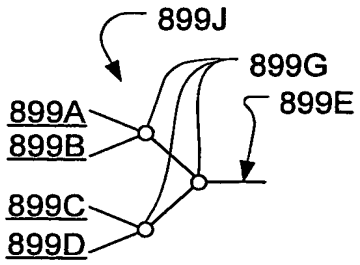


Fig. 15S



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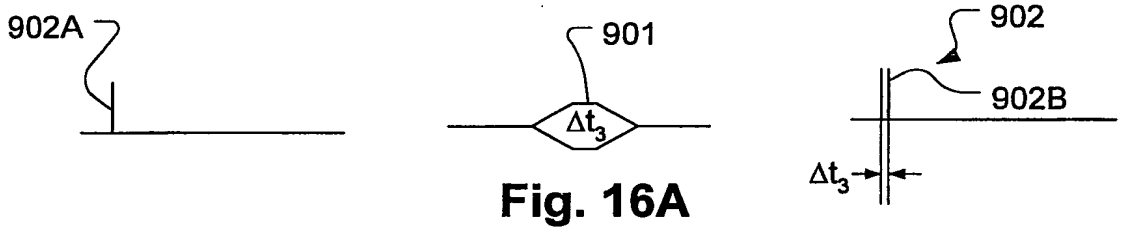


Fig. 16A

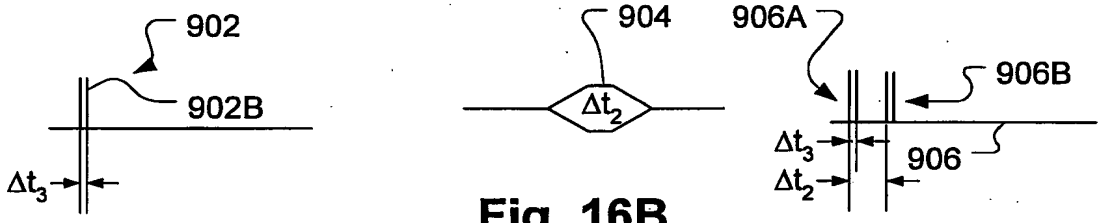


Fig. 16B

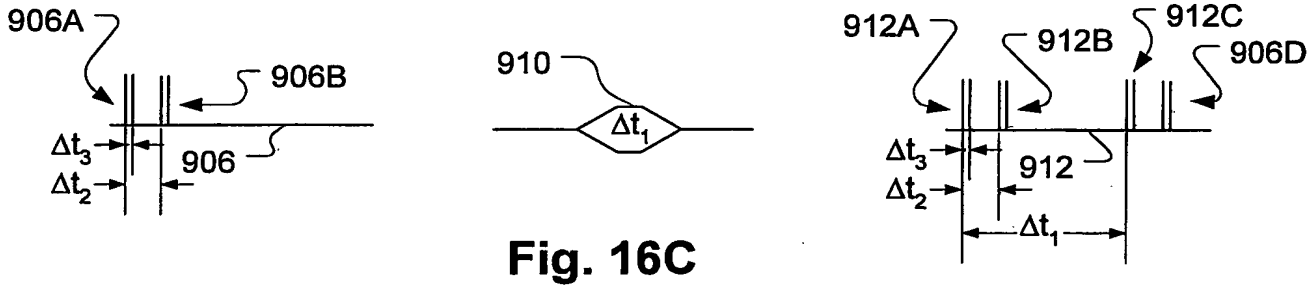


Fig. 16C

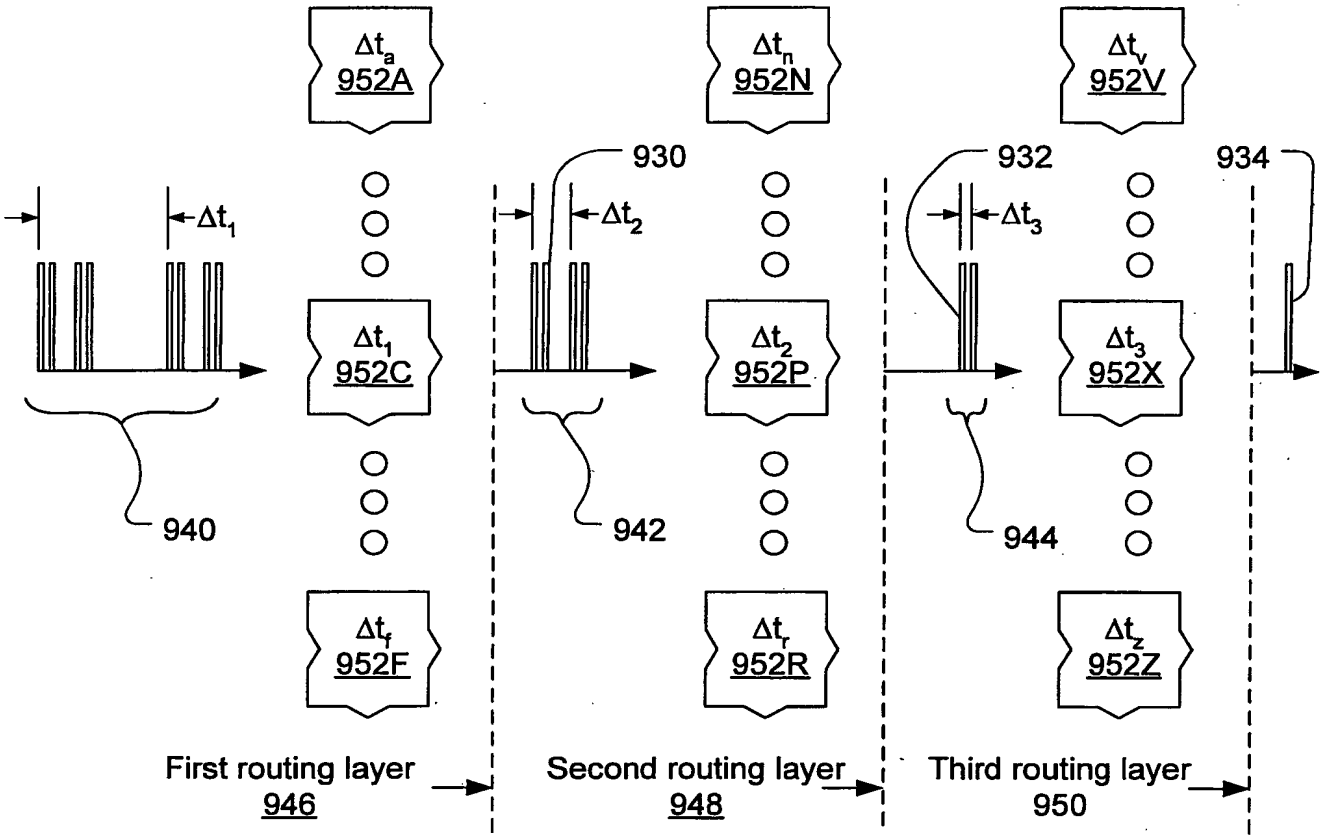


Fig. 16D

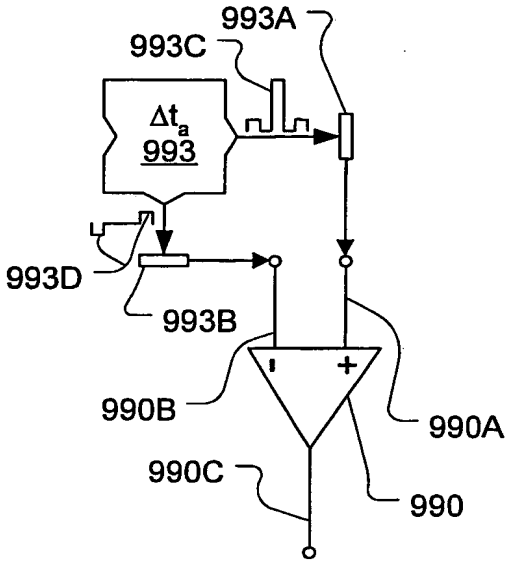


Fig. 16E

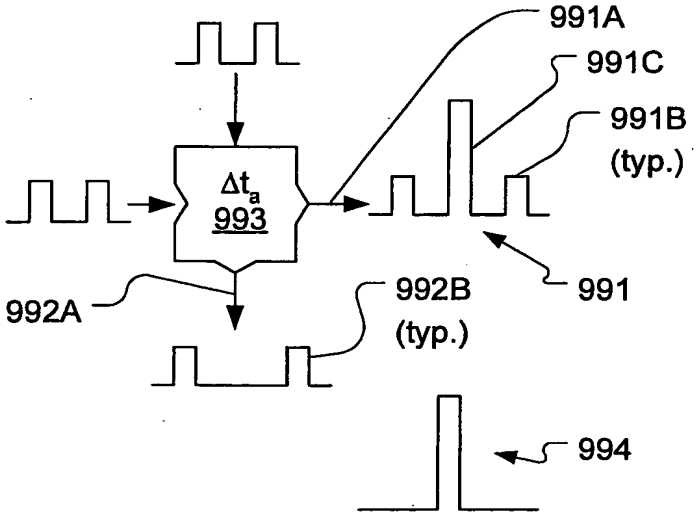


Fig. 16F

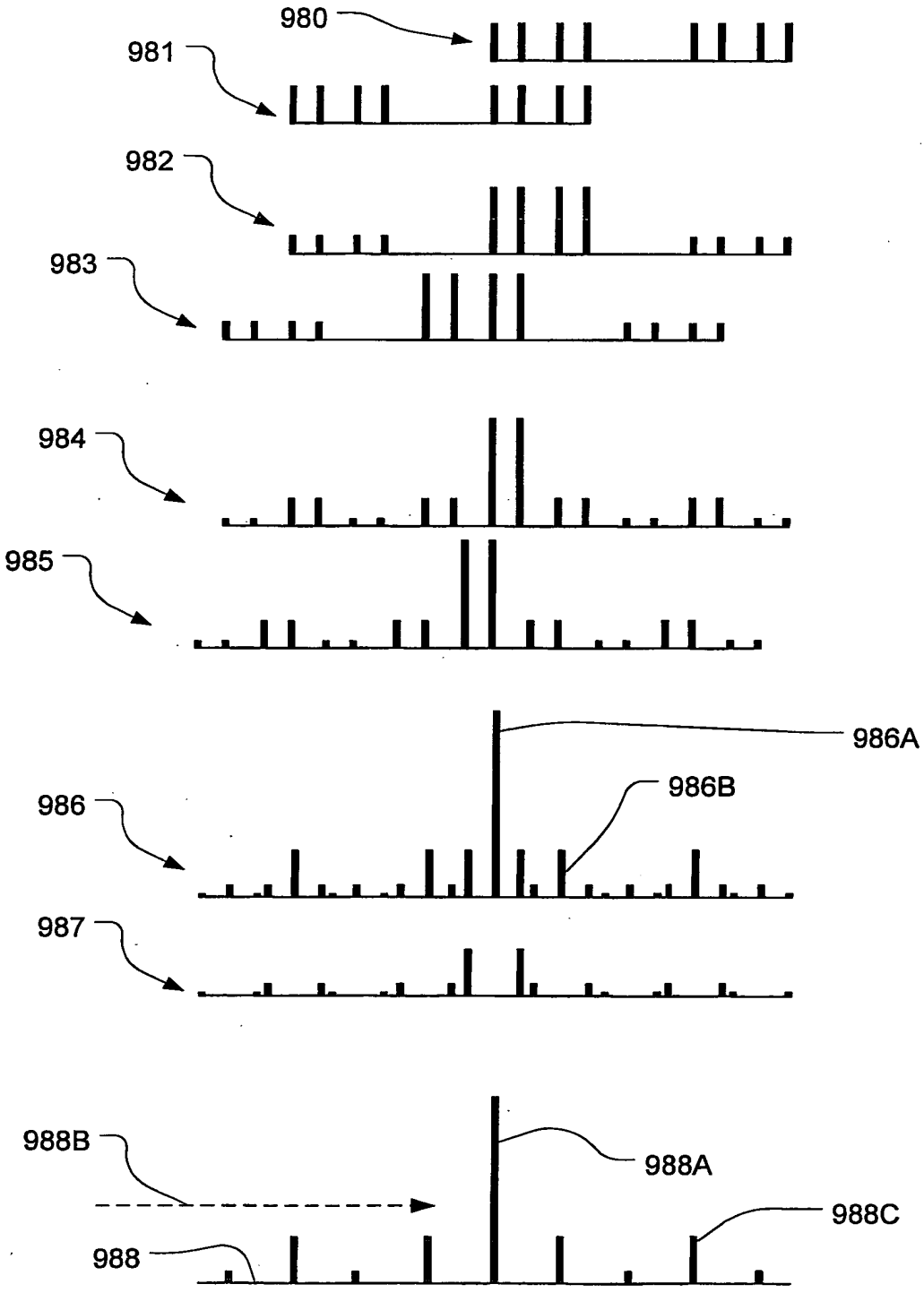
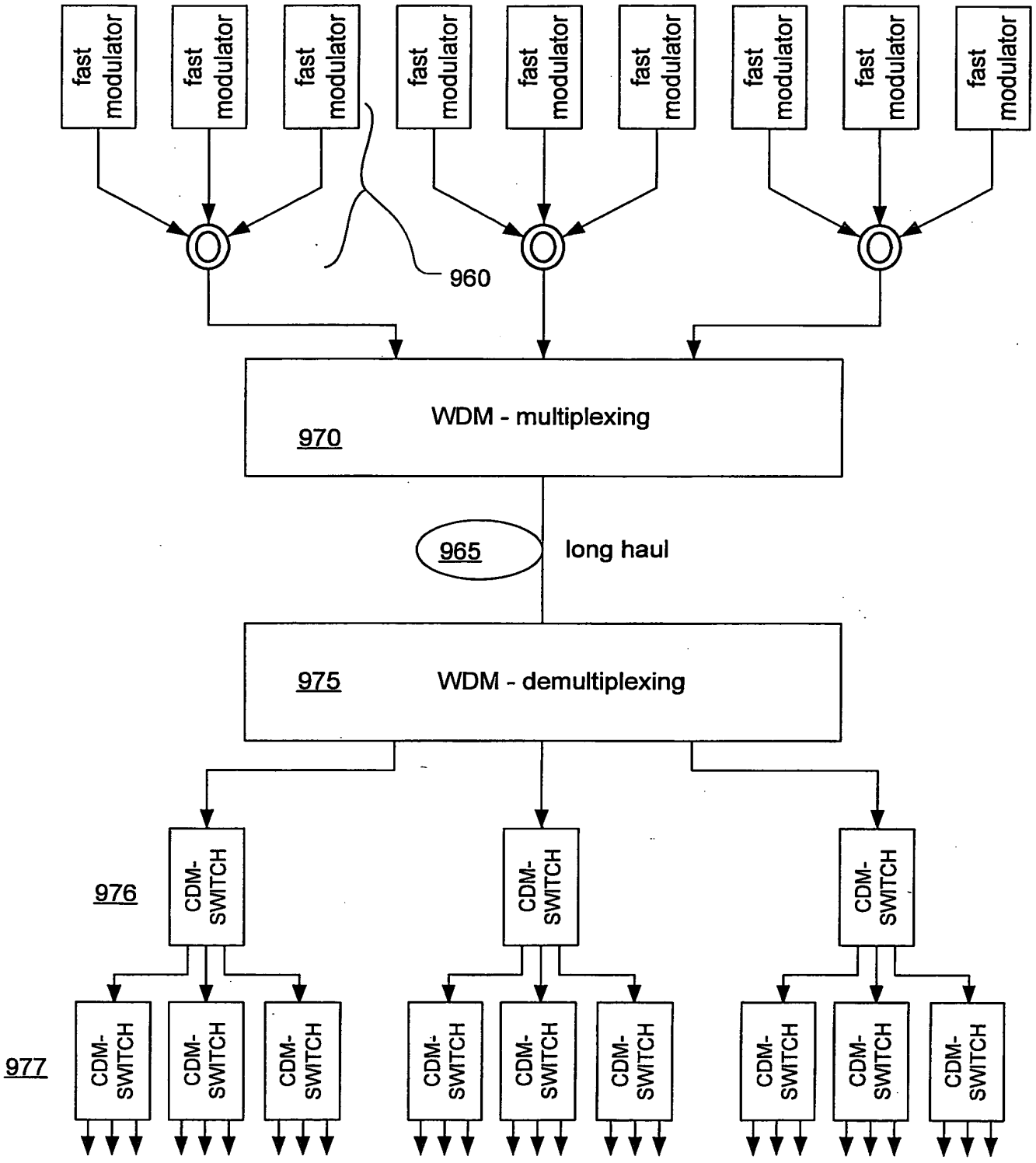


Fig. 16G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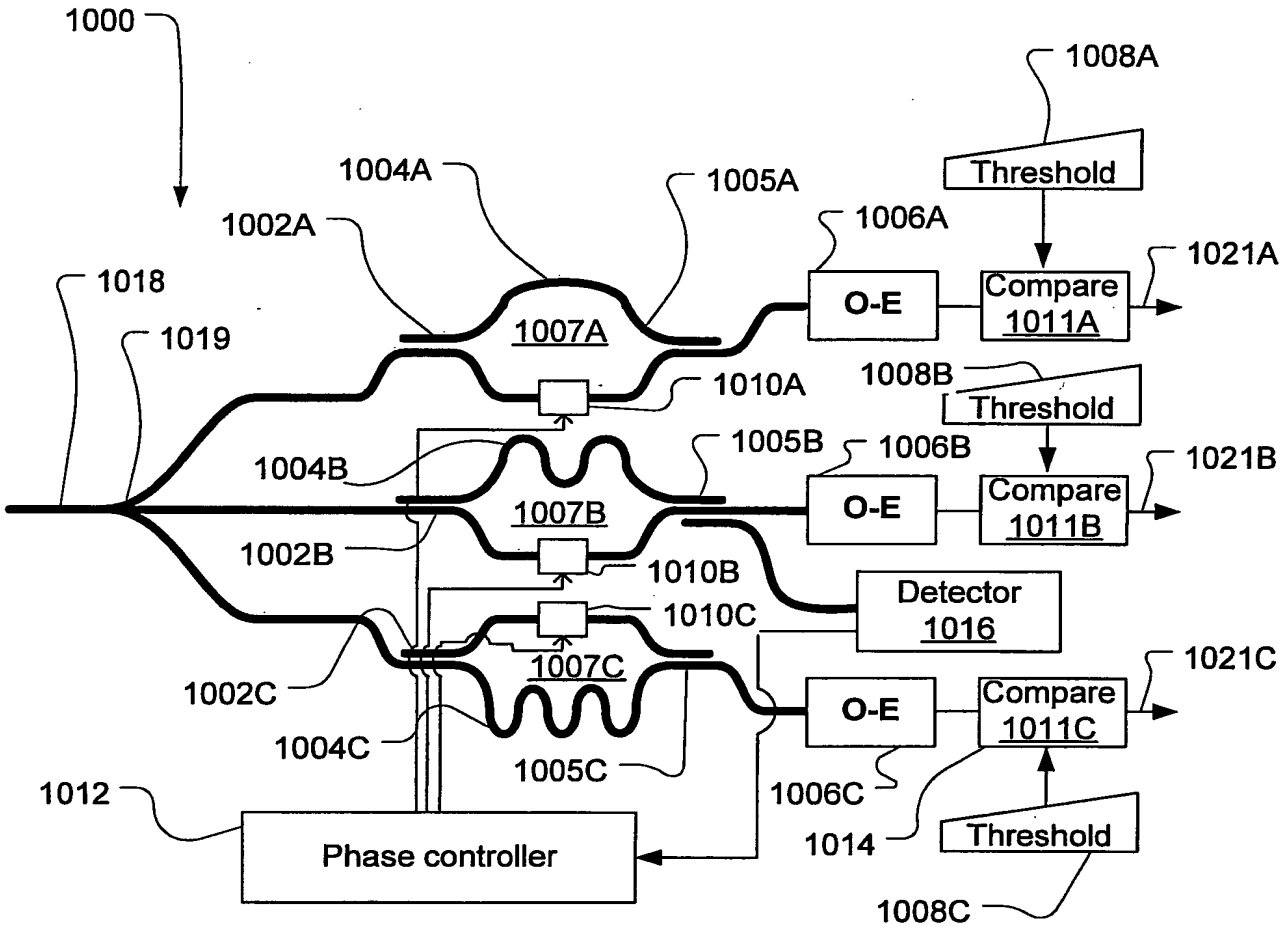
WDM - multiplexing
970
965
long haul
975
WDM - demultiplexing
976
CDM-SWITCH
977

Fig. 17



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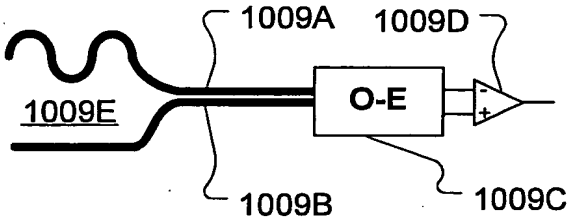


Fig. 18B

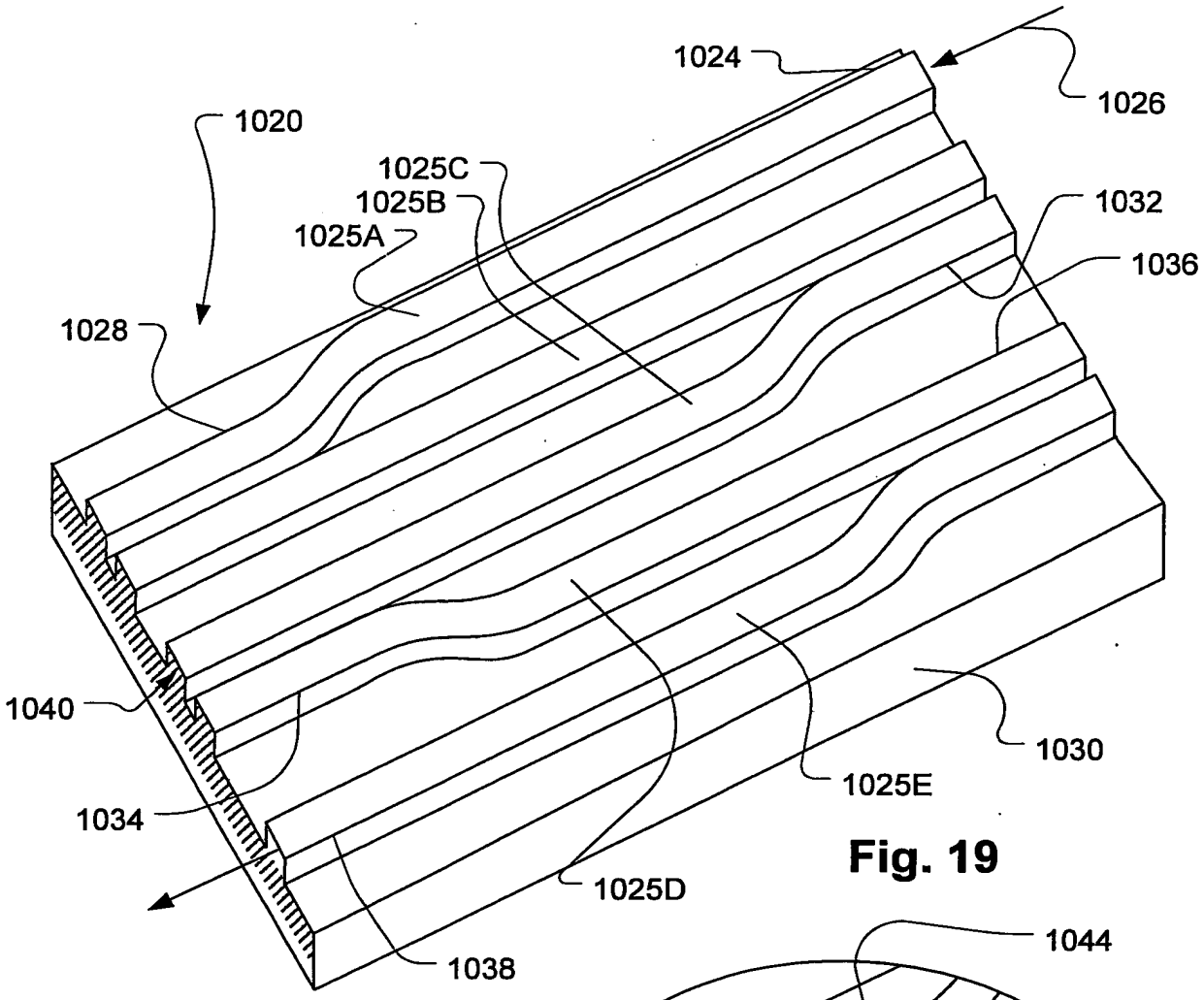


Fig. 19

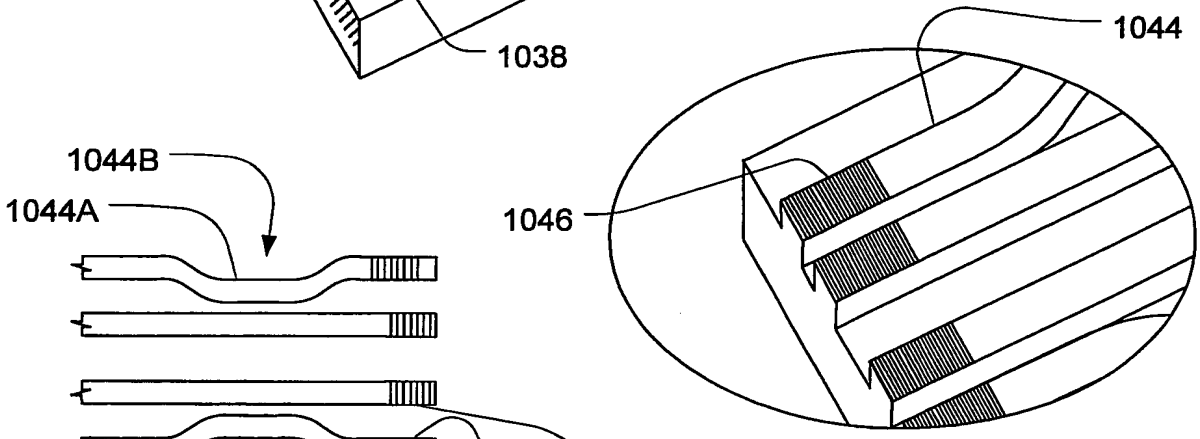


Fig. 20A

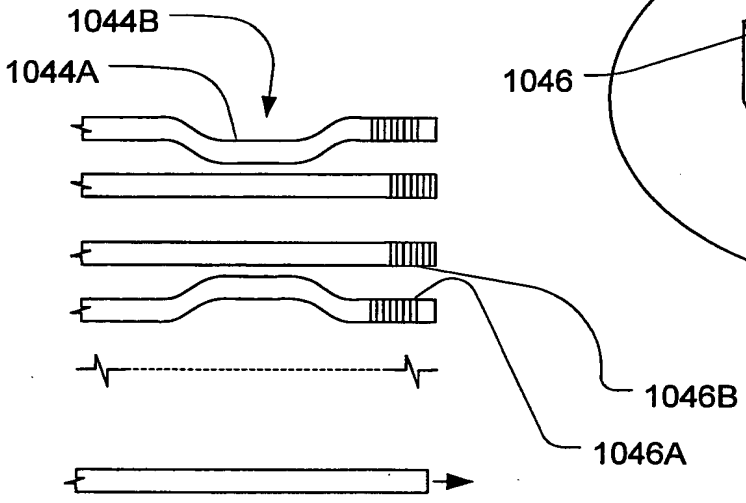


Fig. 20B

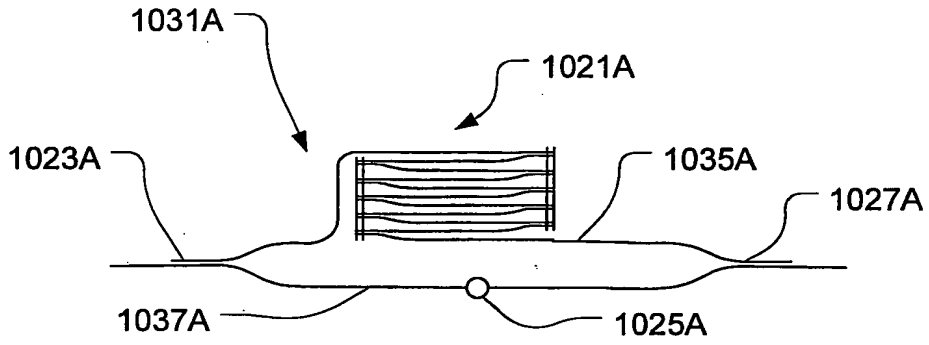


Fig. 20C

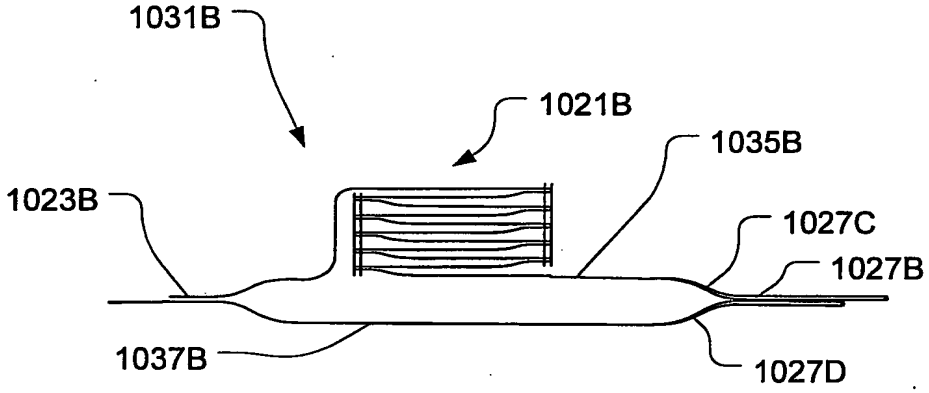


Fig. 20D

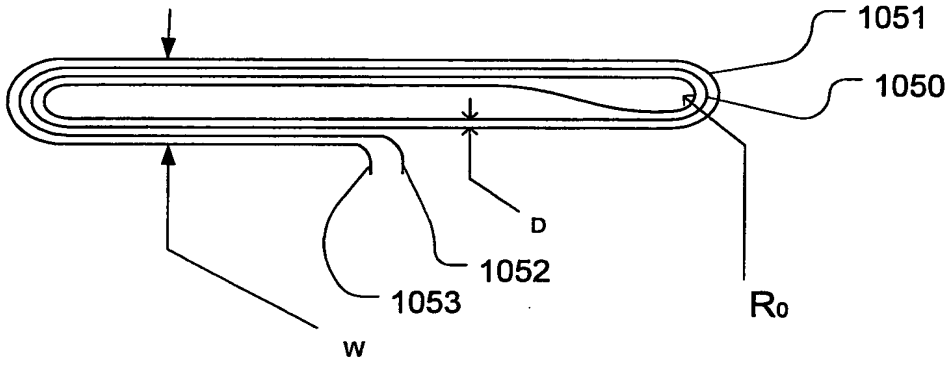


Fig. 20E

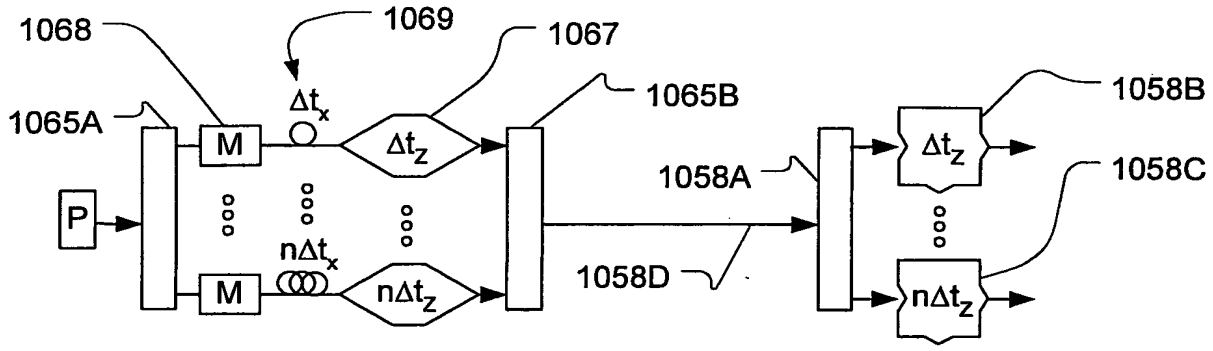


Fig. 21A

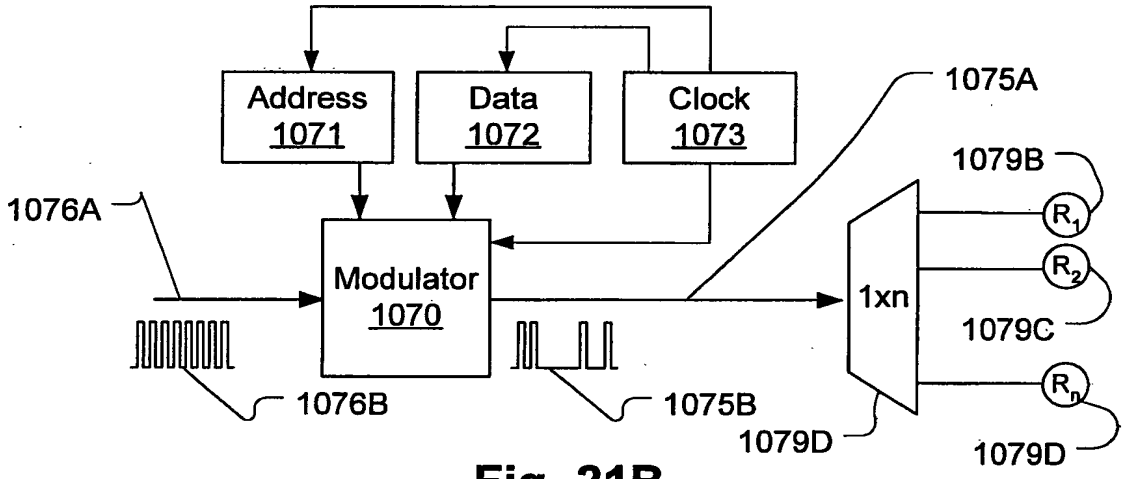


Fig. 21B

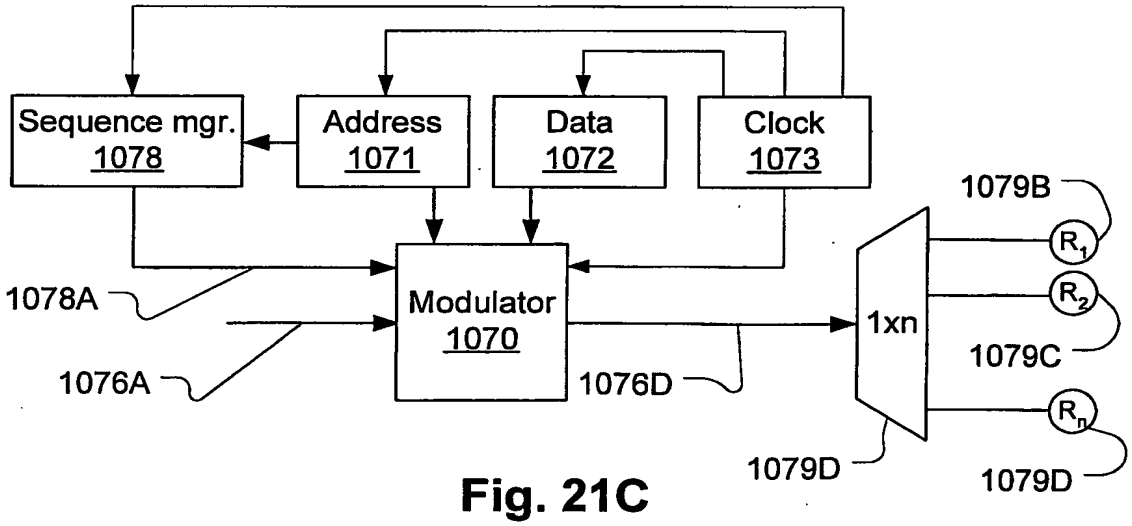
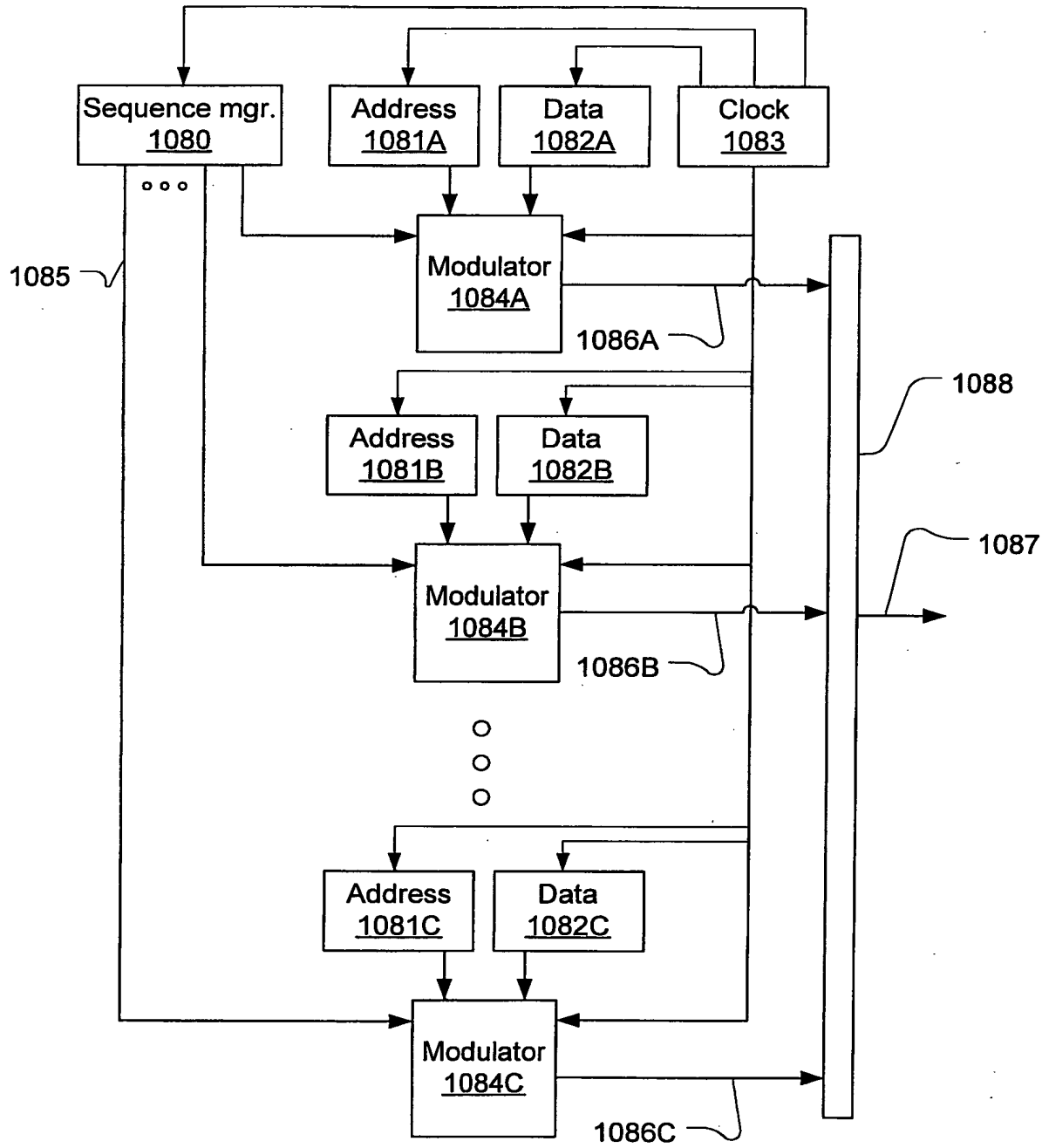


Fig. 21C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Clock
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Modulator
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1086C

Fig. 21D

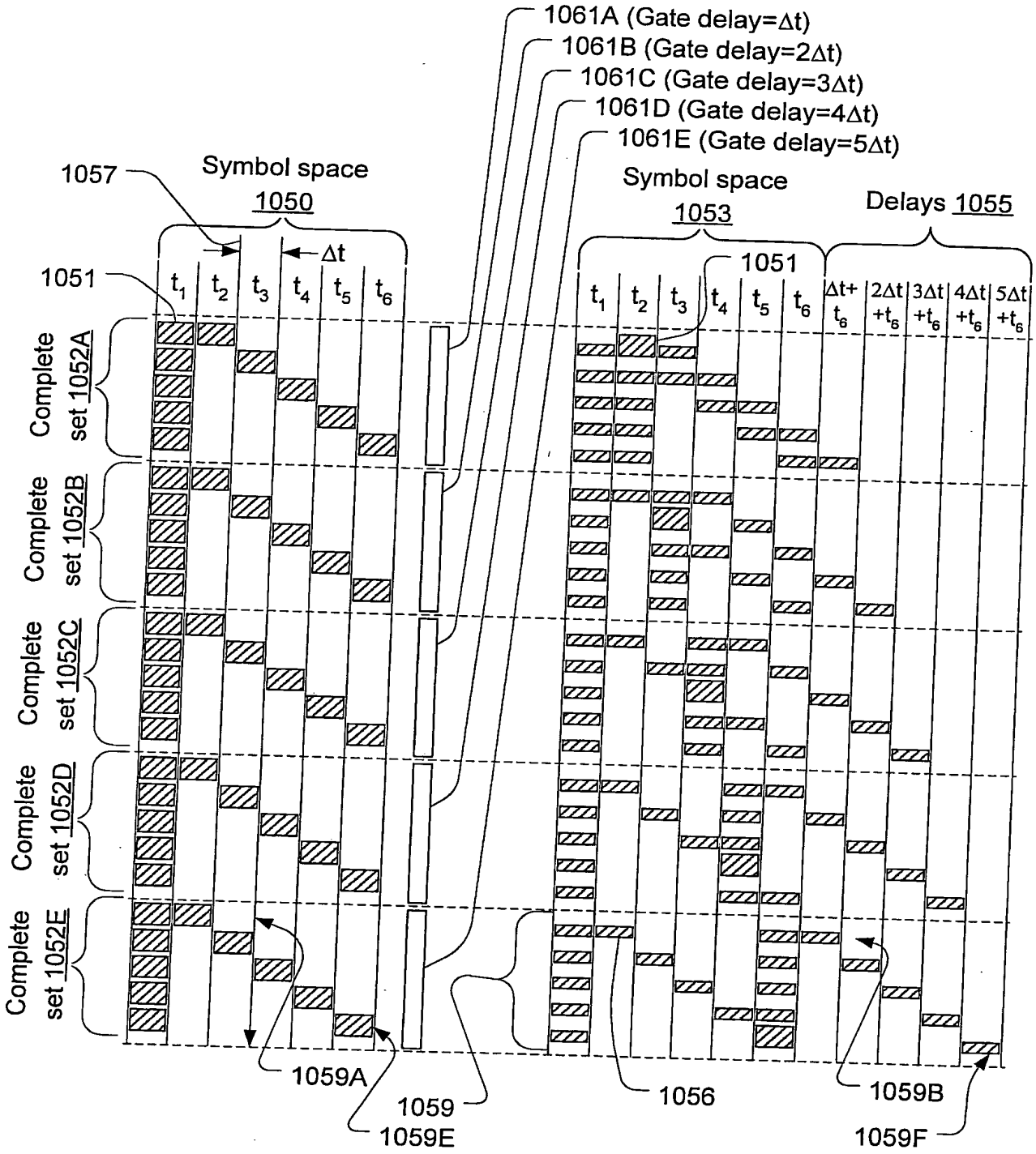

1061A (Gate delay=Δt)
1061B (Gate delay=2Δt)
1061C (Gate delay=3Δt)
1061D (Gate delay=4Δt)
1061E (Gate delay=5Δt)
1057
Symbol space 1050
Δt
1051
t1 t2 t3 t4 t5 t6
Symbol space 1053
Delays 1055
Δt+ t6
2Δt +t6
3Δt +t6
4Δt +t6
5Δt +t6
Complete set 1052A
Complete set 1052B
Complete set 1052C
Complete set 1052D
Complete set 1052E
1059A
1059
1059E
1056
1059B
1059F

Fig. 21E

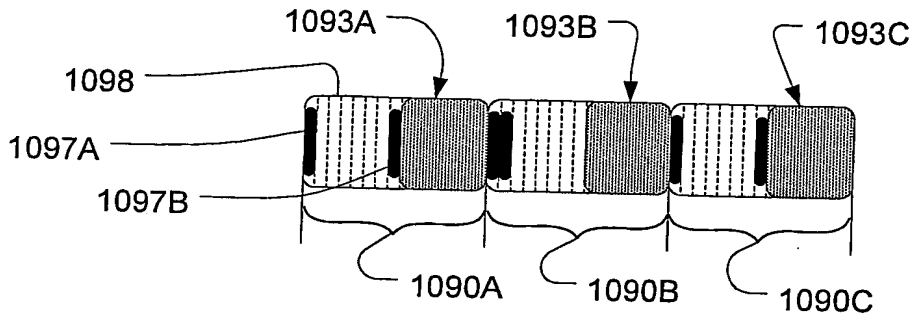


Fig. 21F

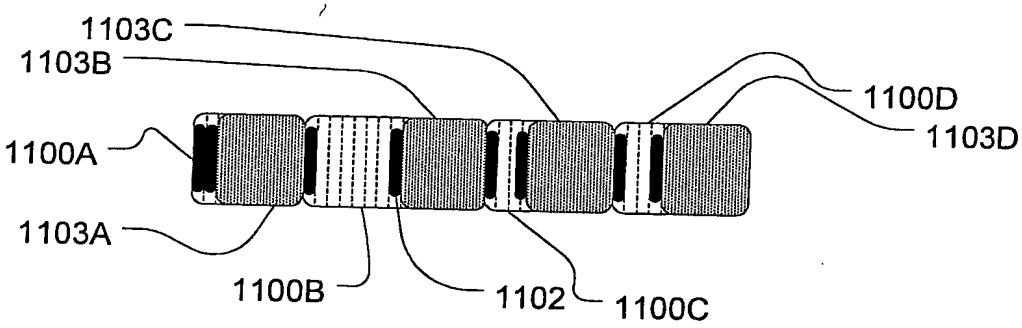


Fig. 21G

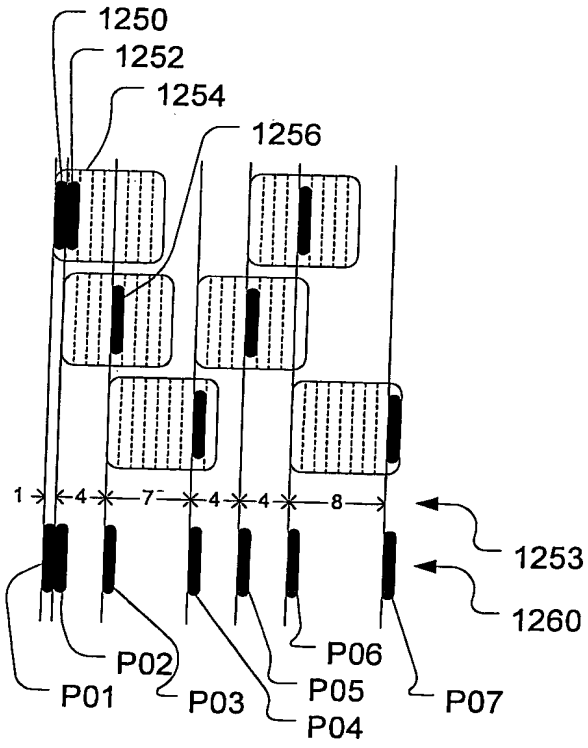


Fig. 21J

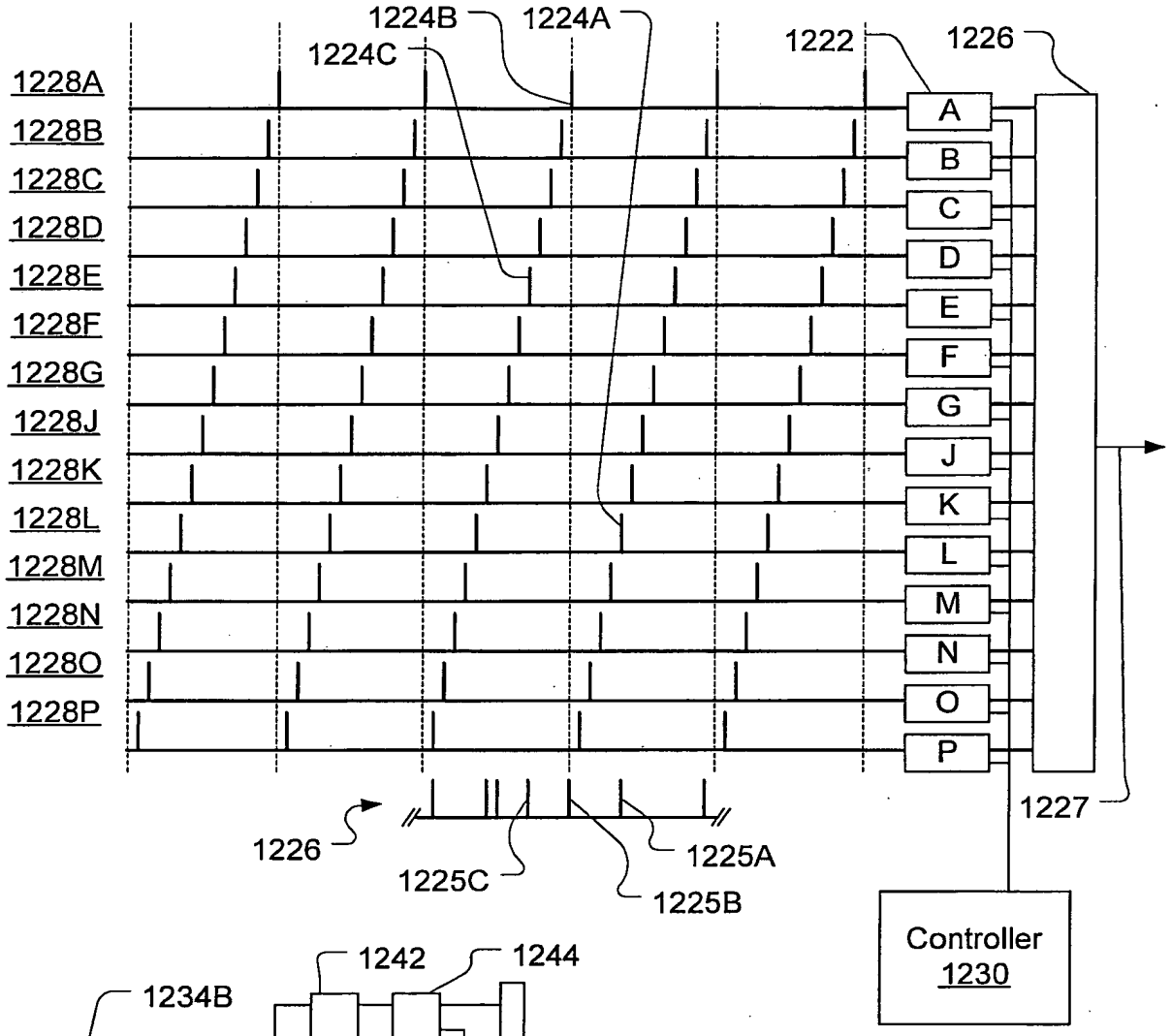


Fig. 21K

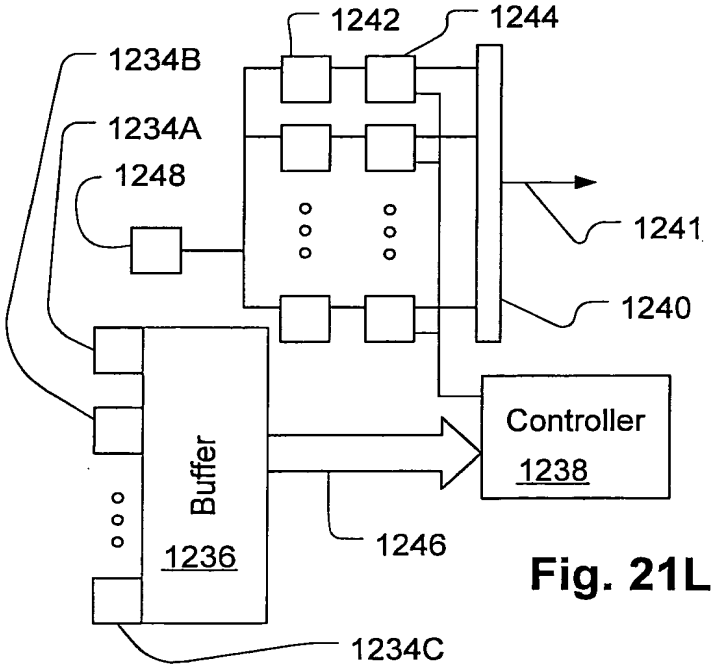


Fig. 21L

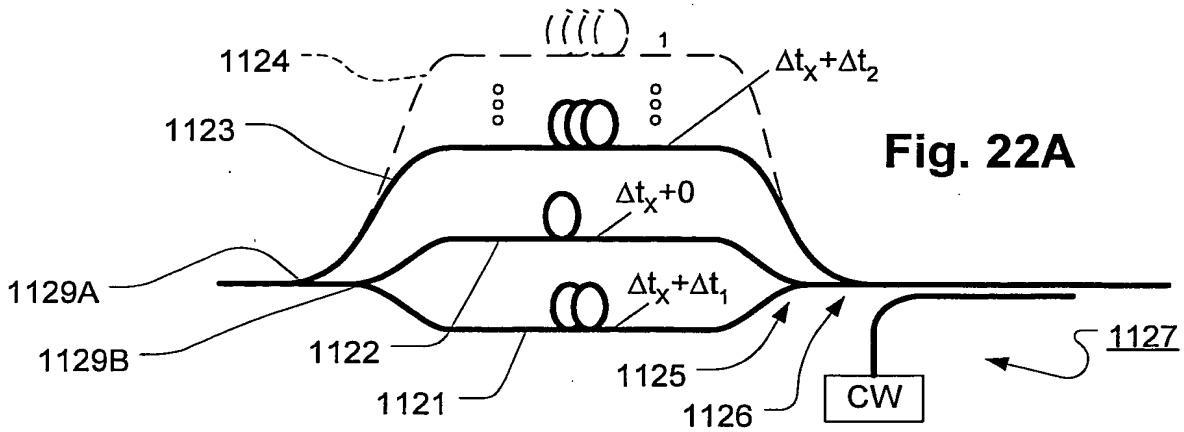


Fig. 22A

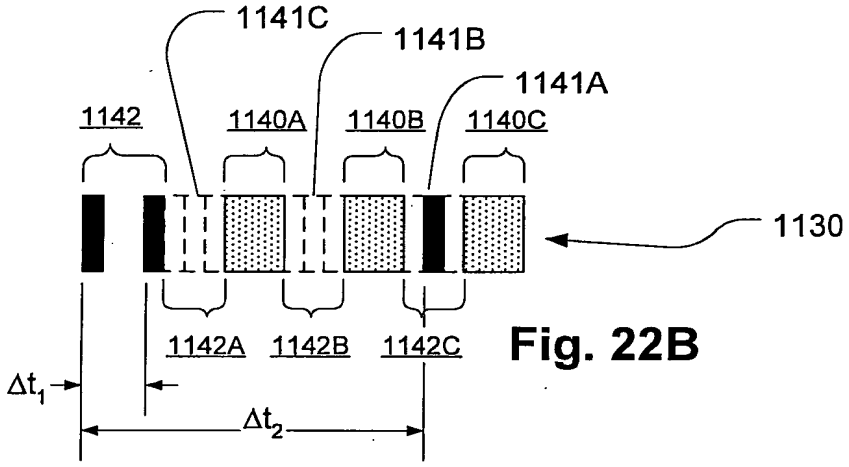


Fig. 22B

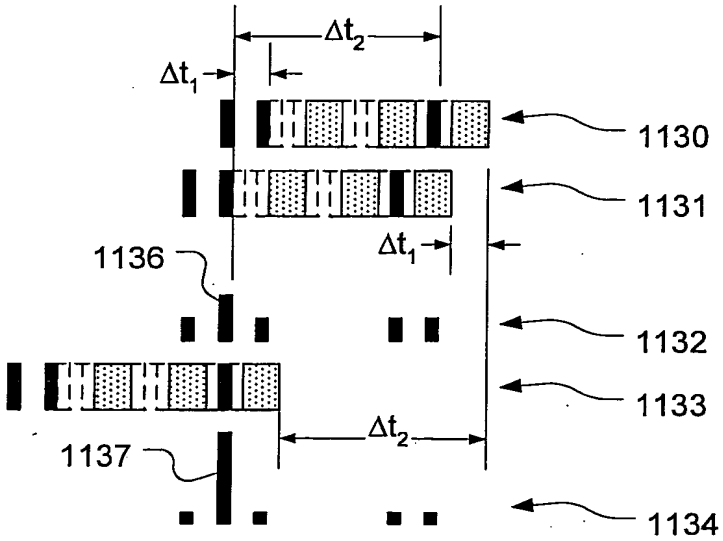


Fig. 22C

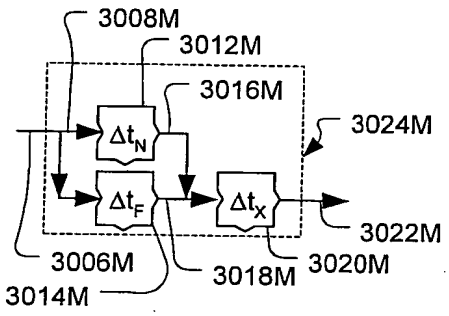


Fig. 22E

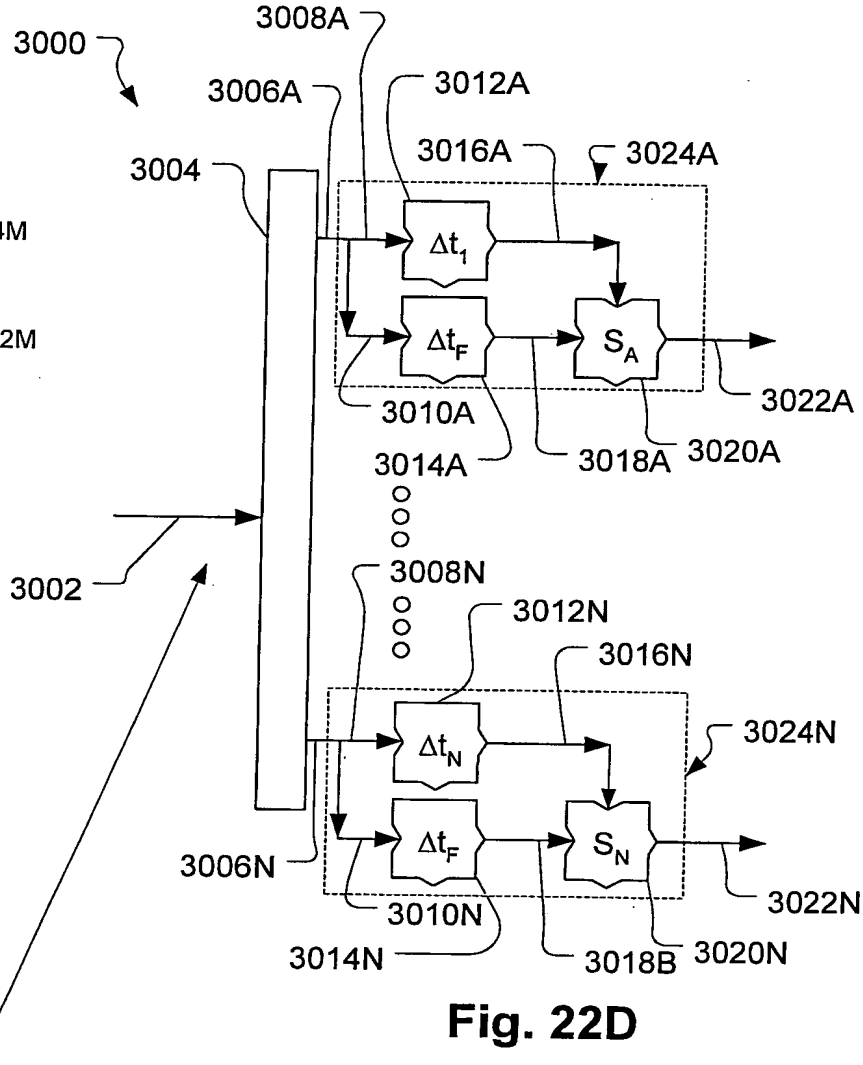


Fig. 22D

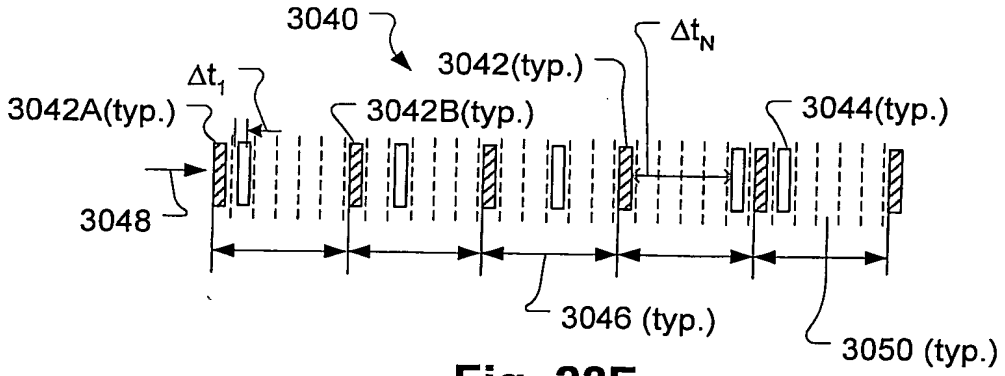


Fig. 22F

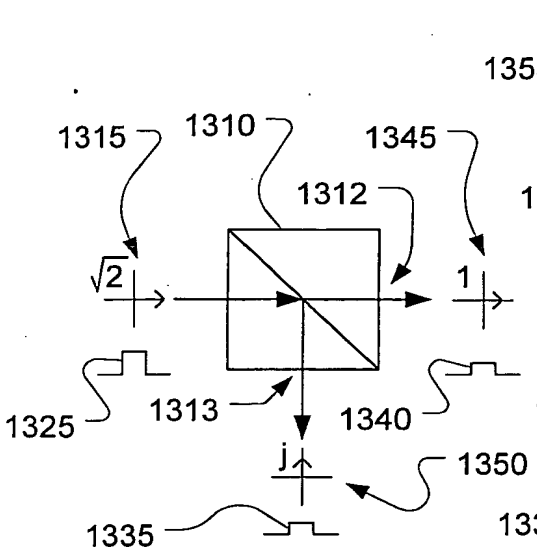


Fig. 23A

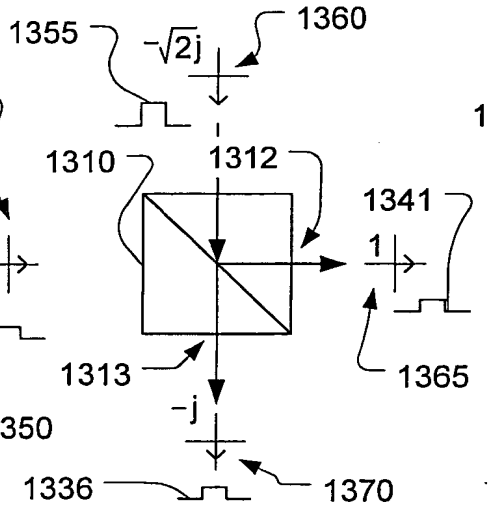


Fig. 23B

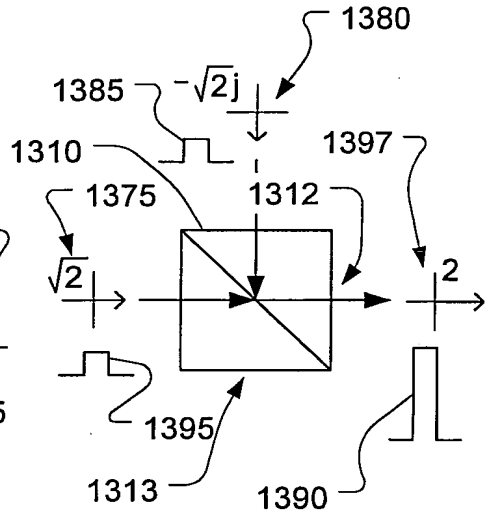


Fig. 23C

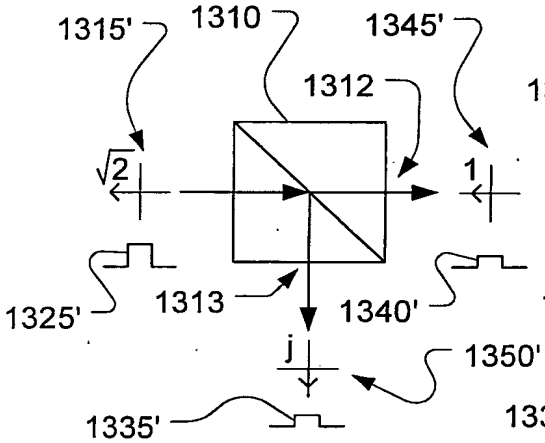


Fig. 23D

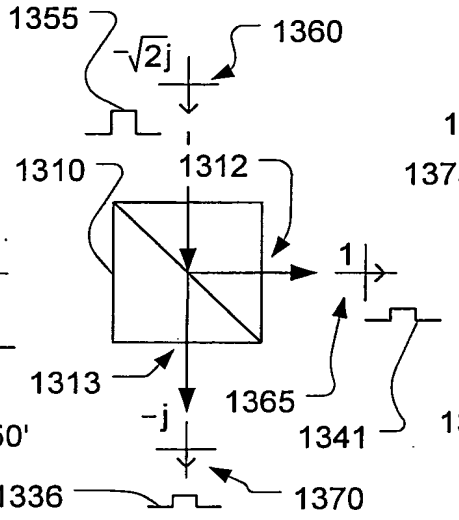


Fig. 23E

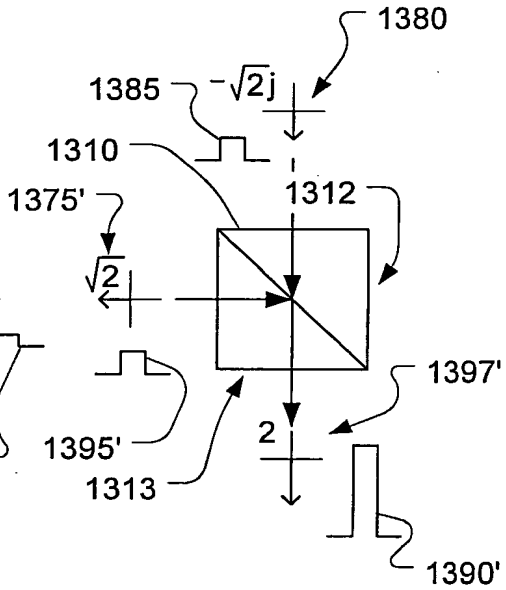


Fig. 23F

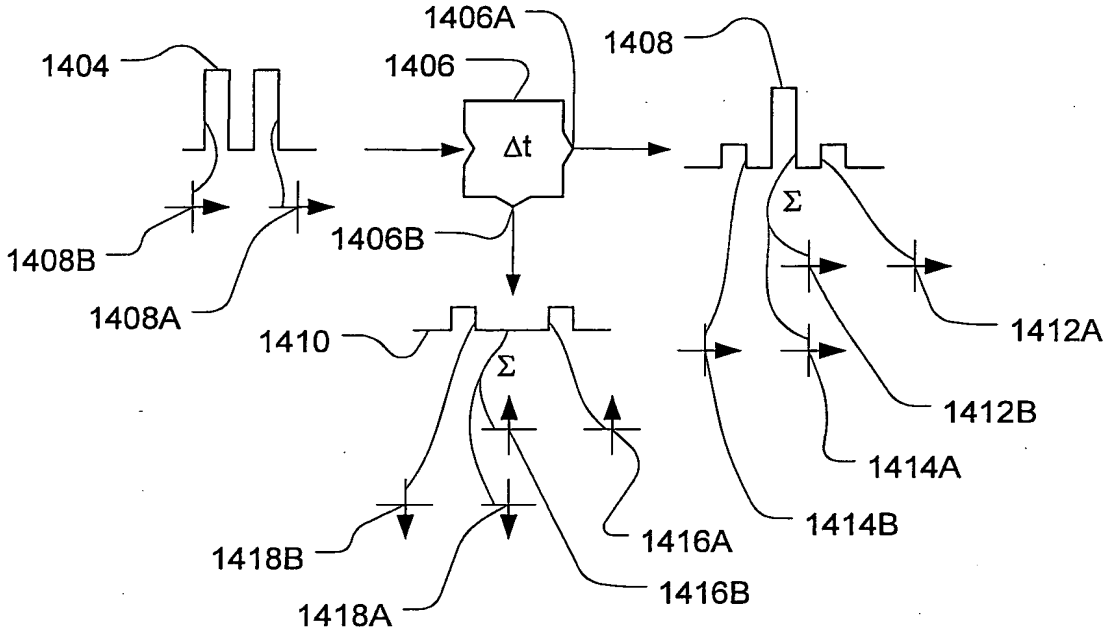


Fig. 23G

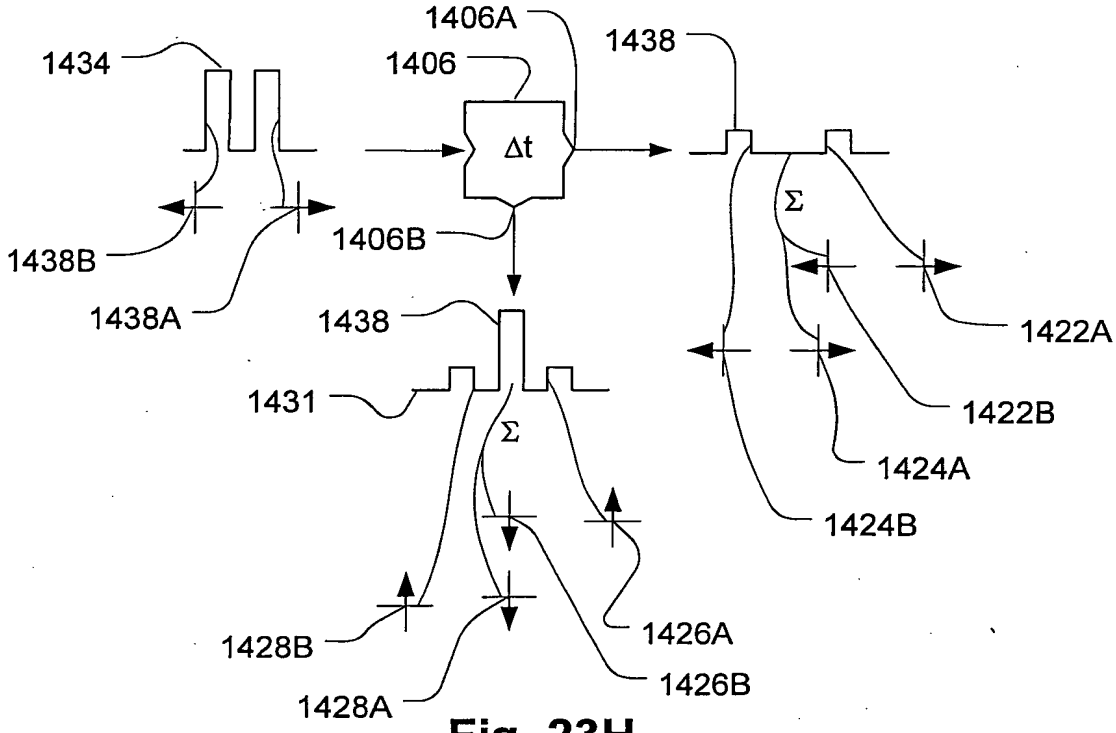


Fig. 23H

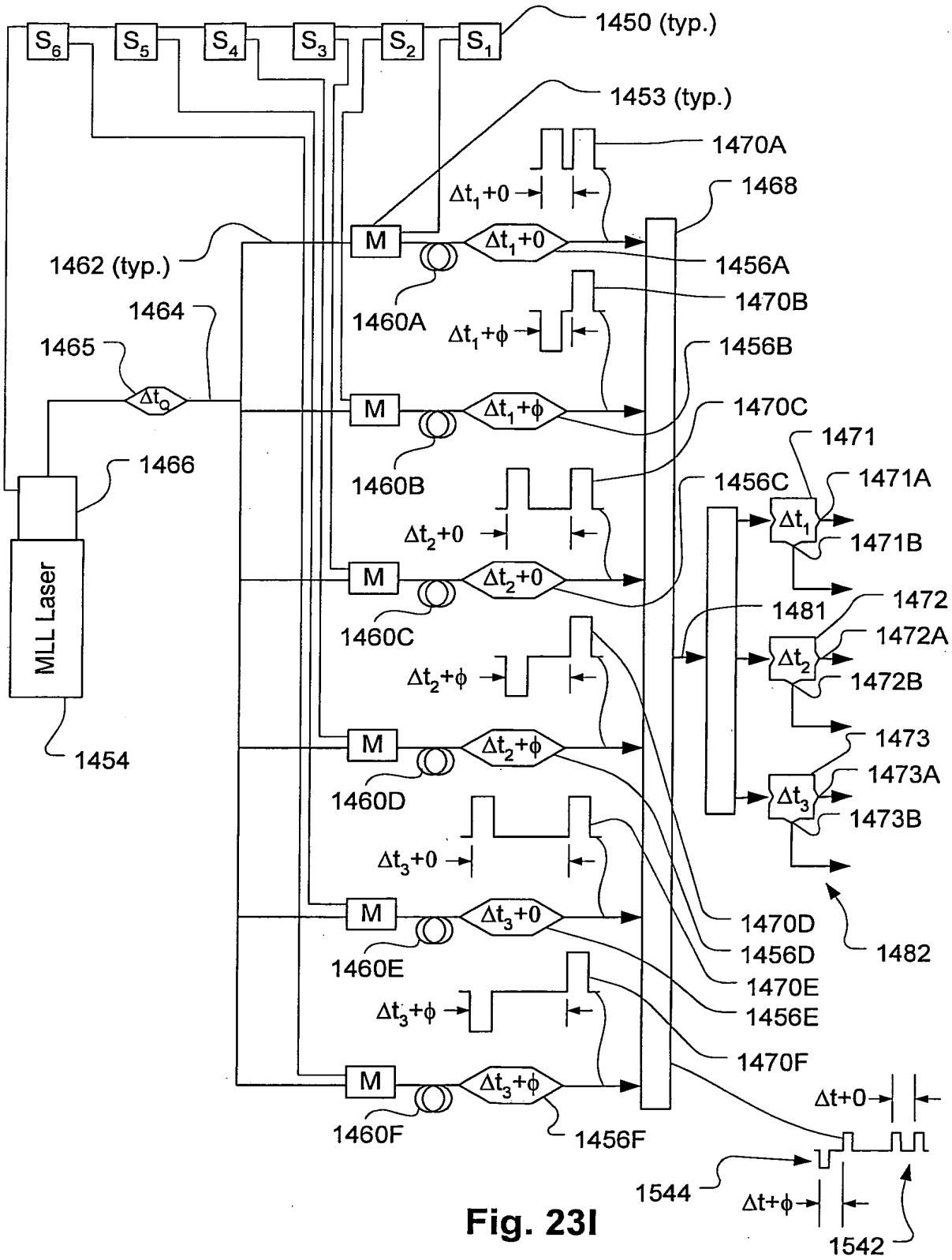

S6
S5
S4
S3
S2
S1
1450 (typ.)
1453 (typ.)
1470A
Δt1+0
1468
M
Δt1+0
1462 (typ.)
1456A
1460A
1470B
1464
Δt1+ϕ
1465
1456B
Δtq
M
Δt1+ϕ
1470C
1471
1466
1460B
1456C
1471A
Δt2+0
Δt1
1471B
MLL Laser
M
Δt2+0
1472
1481
1460C
Δt2+ϕ
1472A
Δt2
1472B
1454
M
Δt2+ϕ
1473
1460D
1473A
Δt3
Δt3+0
1473B
M
Δt3+0
1470D
1456D
1460E
1470E
Δt3+ϕ
1456E
1470F
M
Δt3+ϕ
Δt+0
1460F
1456F
1544
Δt+ϕ
1542
1482

Fig. 23I

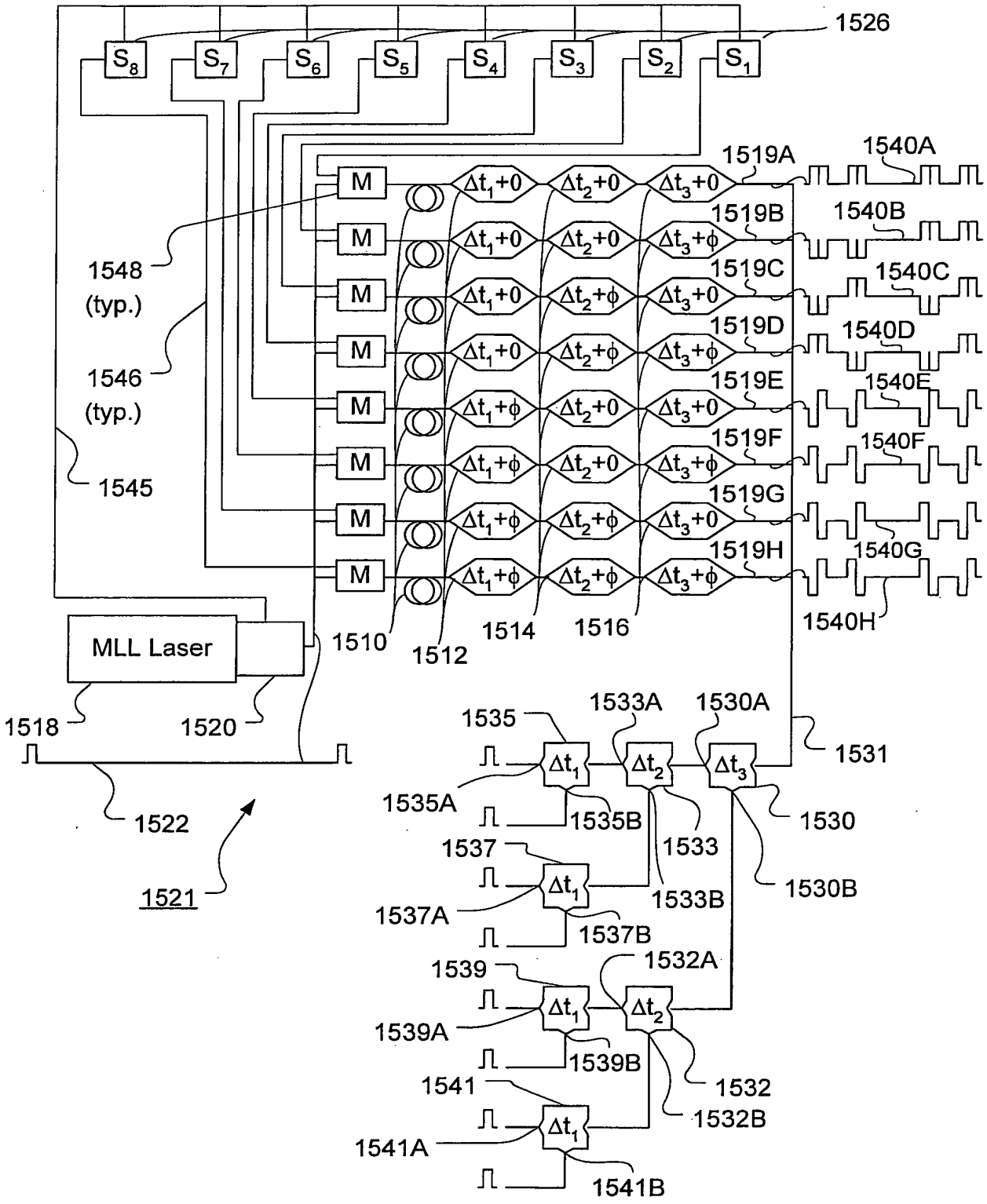

1526
S8
S7
S6
S5
S4
S3
S2
S1
1519A
1540A
M
Δt1+0
Δt2+0
Δt3+0
1519B
1540B
Δt3+ϕ
1548
(typ.)
1519C
1540C
Δt2+ϕ
1546
(typ.)
1519D
1540D
Δt1+ϕ
1519E
1540E
1545
1519F
1540F
1519G
1540G
1519H
1540H
MLL Laser
1510
1512
1514
1516
1518
1520
1522
1521
1535
1533A
1530A
1531
1535A
1535B
1533
1530
1537
1530B
1537A
1533B
1537B
1539
1532A
1539A
1539B
1532
1541
1532B
1541A
1541B

Fig. 23J

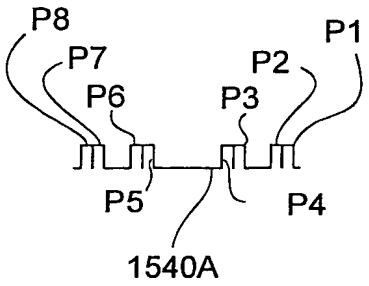


Fig. 23K

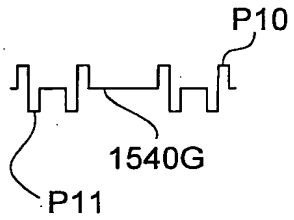


Fig. 23L

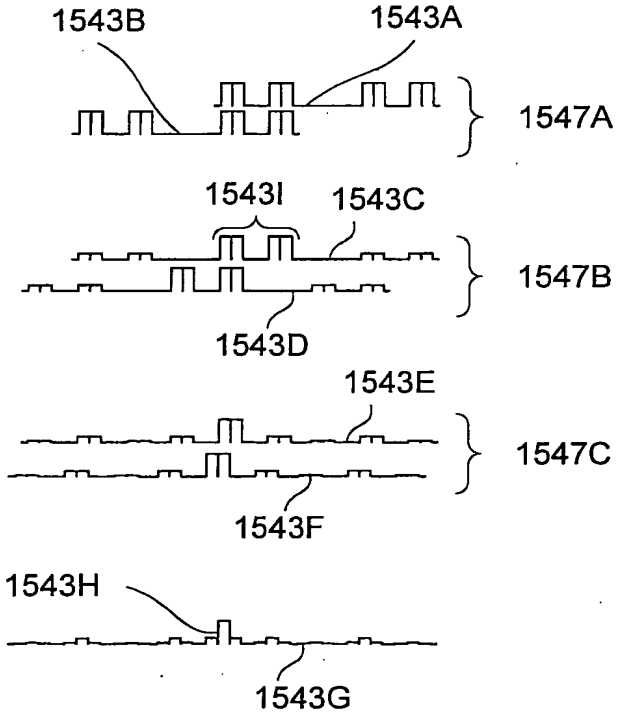


Fig. 23M

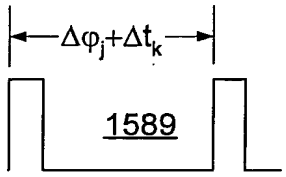


Fig. 23N

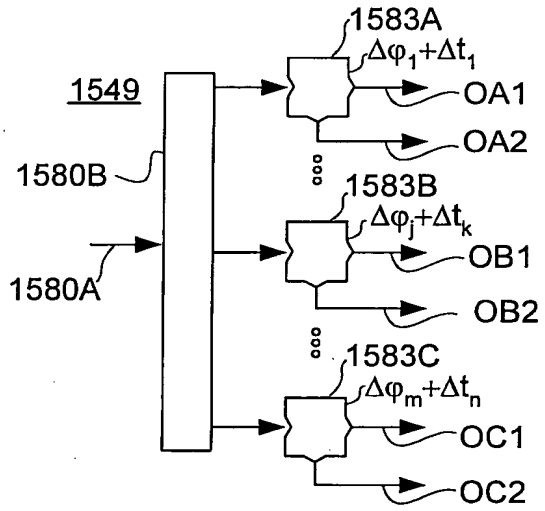


Fig. 23P

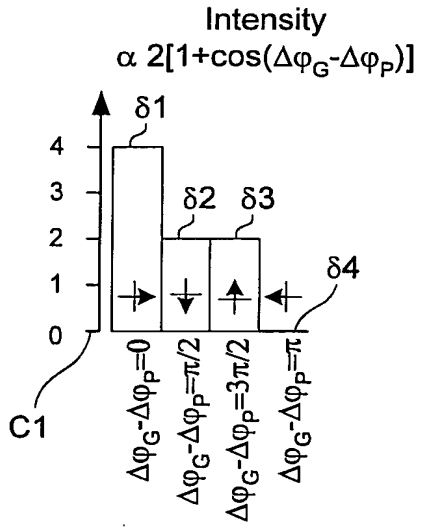


Fig. 23Q

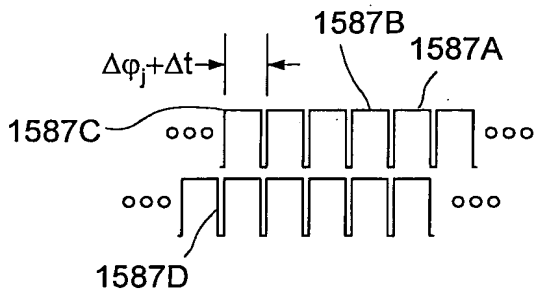


Fig. 23R

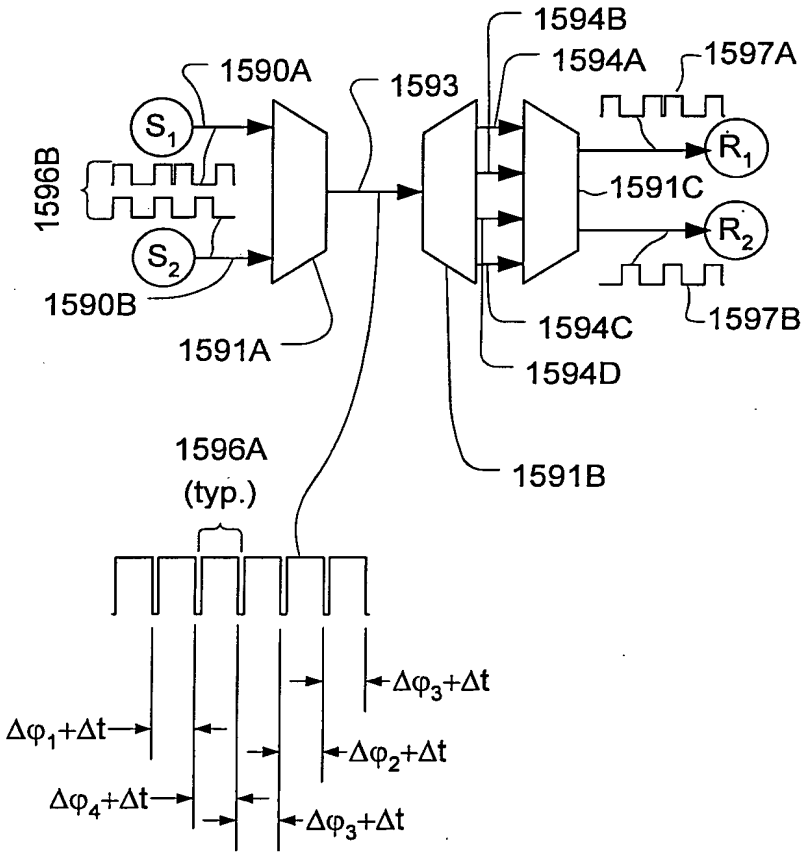


Fig. 23S

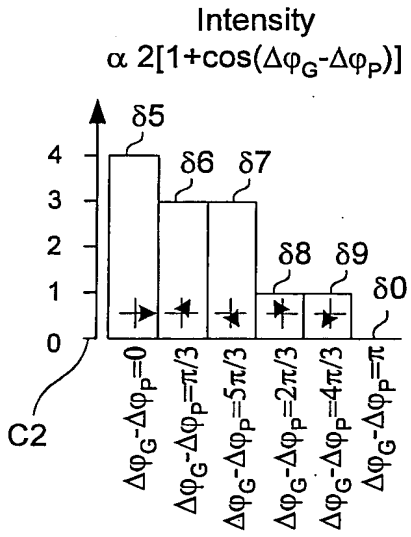


Fig. 23U

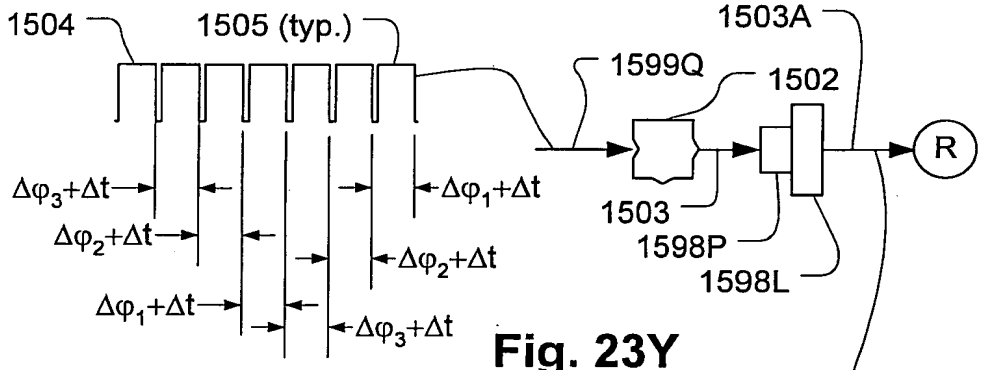
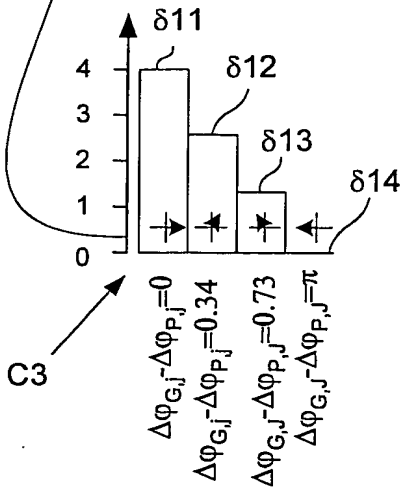


Fig. 23Y



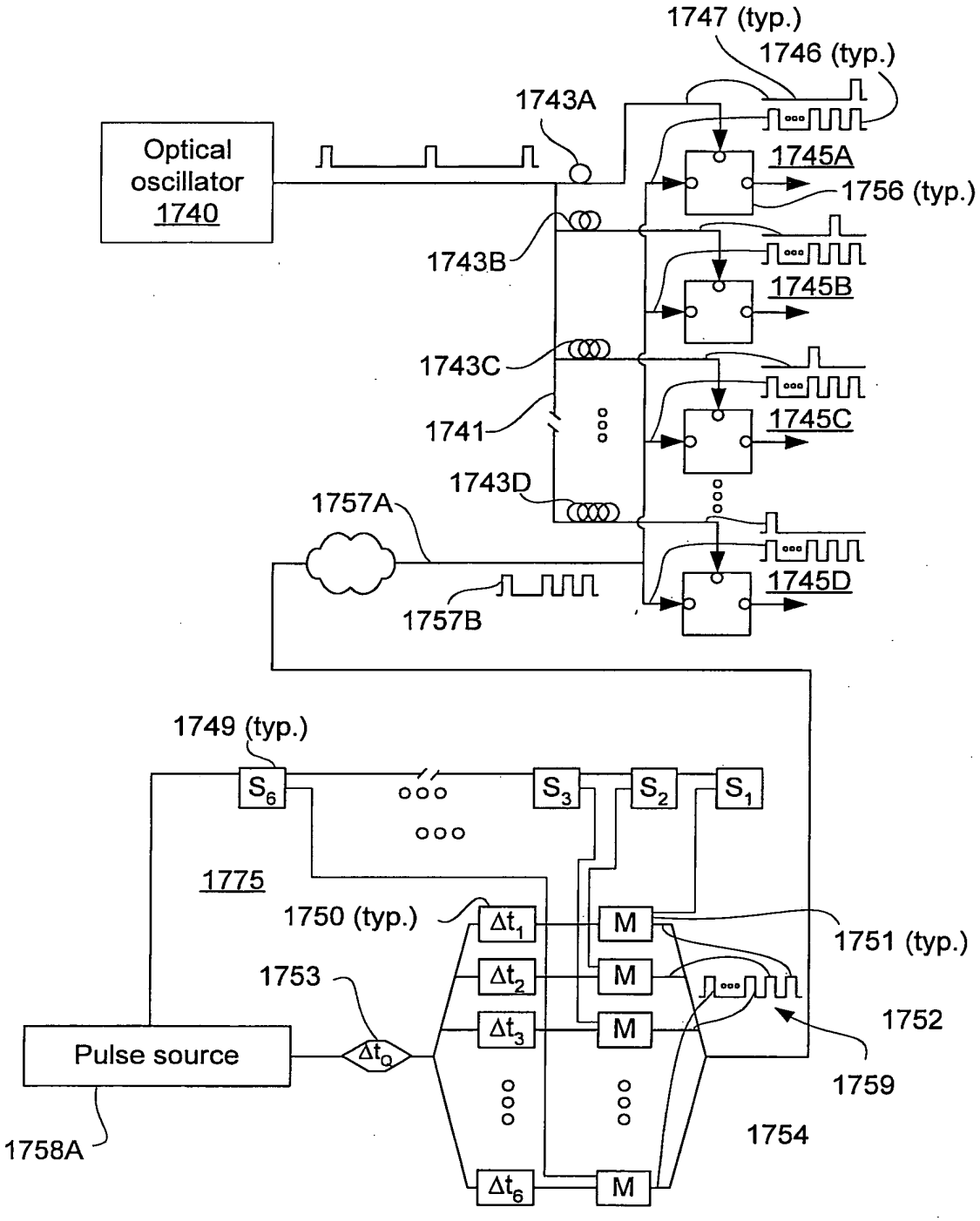

1747 (typ.)
1746 (typ.)
1743A
Optical oscillator 1740
1745A
1756 (typ.)
1743B
1745B
1743C
1745C
1741
1743D
1757A
1745D
1757B
1749 (typ.)
S6
S3
S2
S1
1775
1750 (typ.)
Δt1
M
1751 (typ.)
1753
Δt2
M
Δt3
M
1752
Pulse source
Δt0
1759
1758A
1754
Δt6
M

Fig. 24

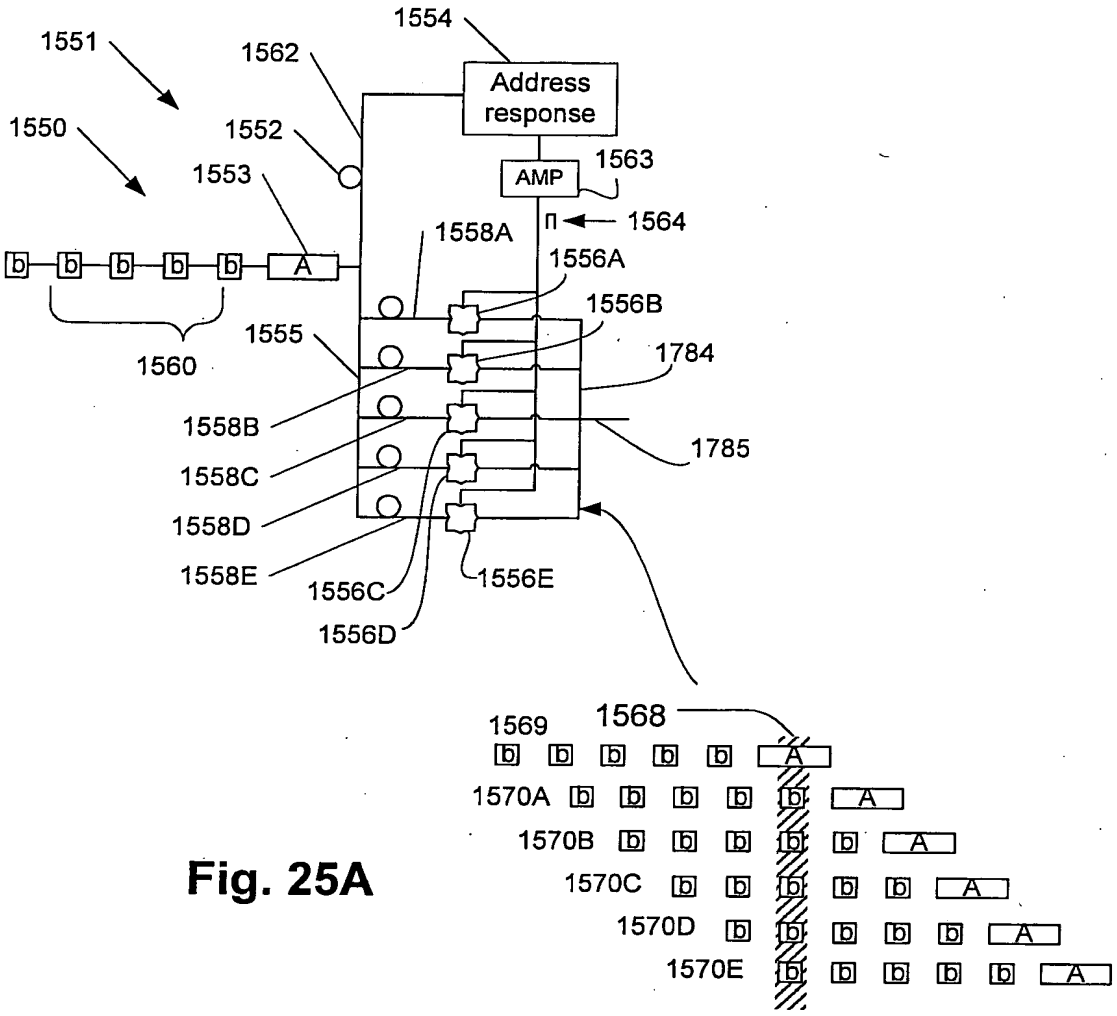


Fig. 25A

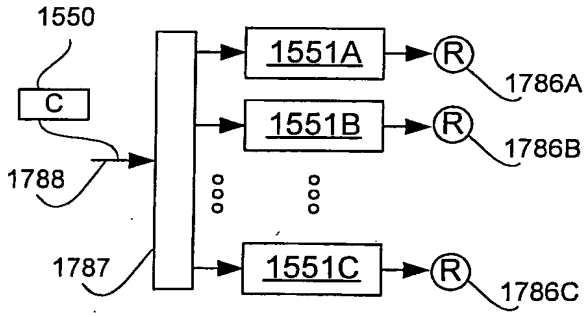


Fig. 25B

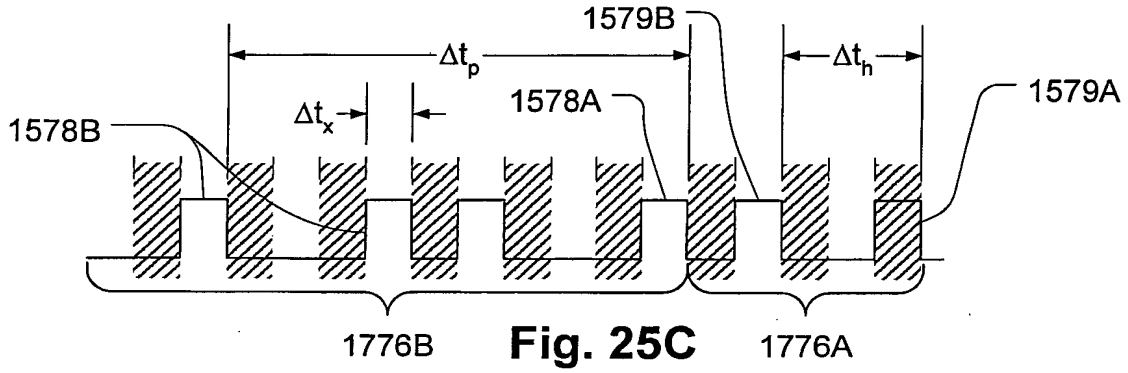


Fig. 25C

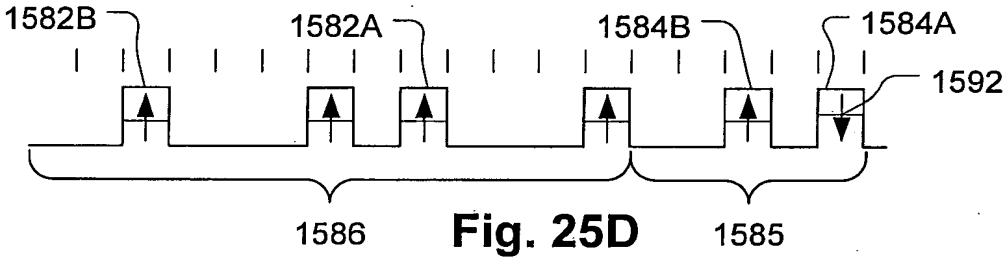


Fig. 25D

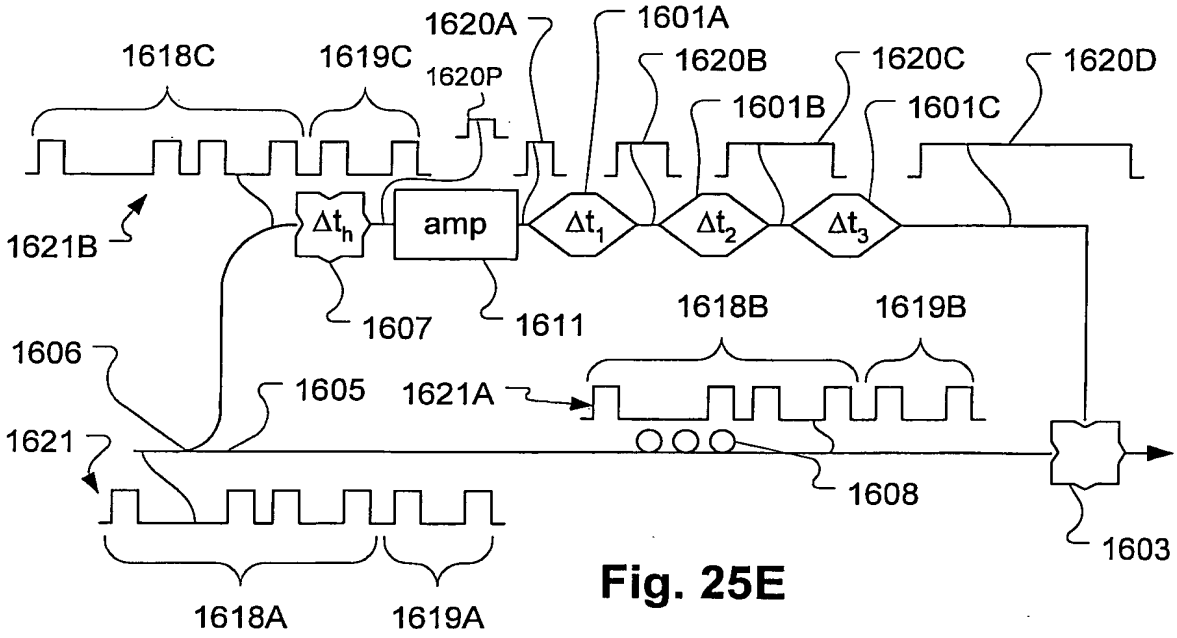


Fig. 25E

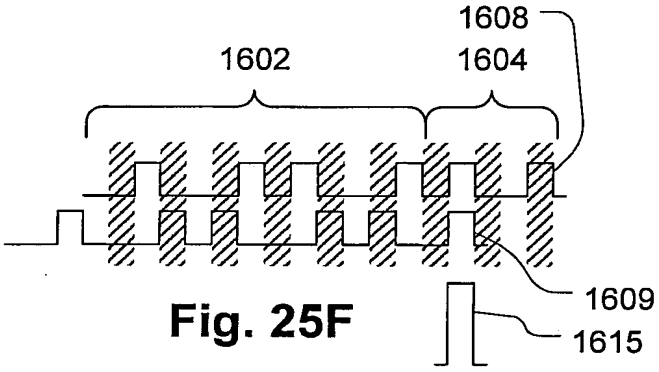


Fig. 25F

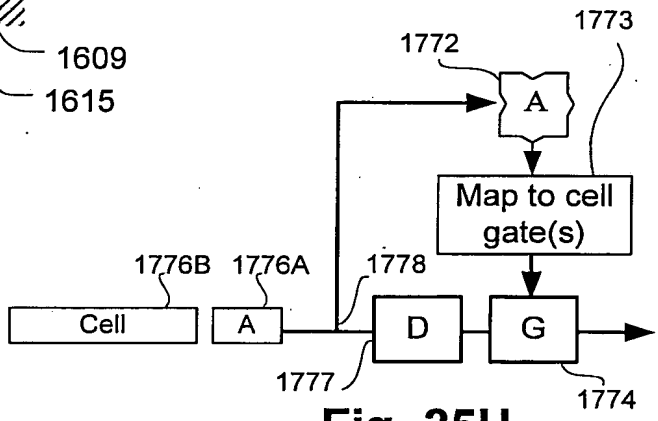


Fig. 25H

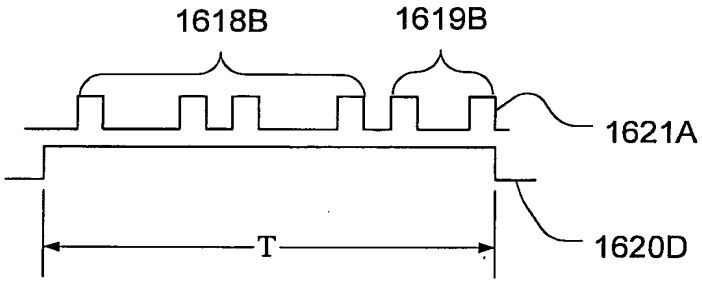


Fig. 25G

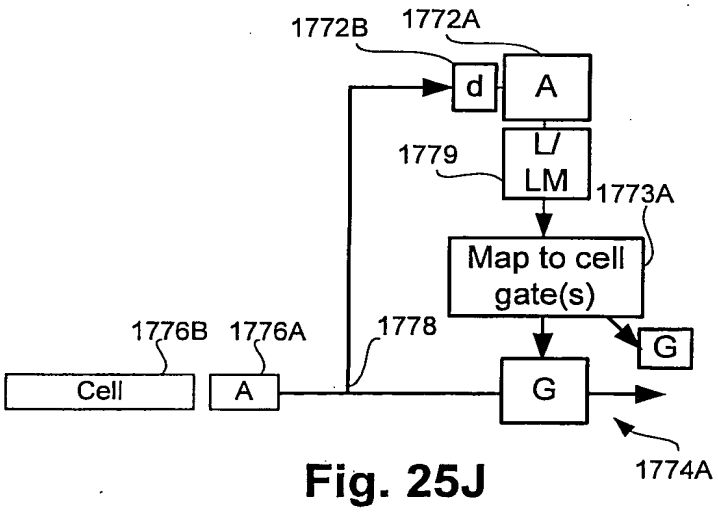


Fig. 25J

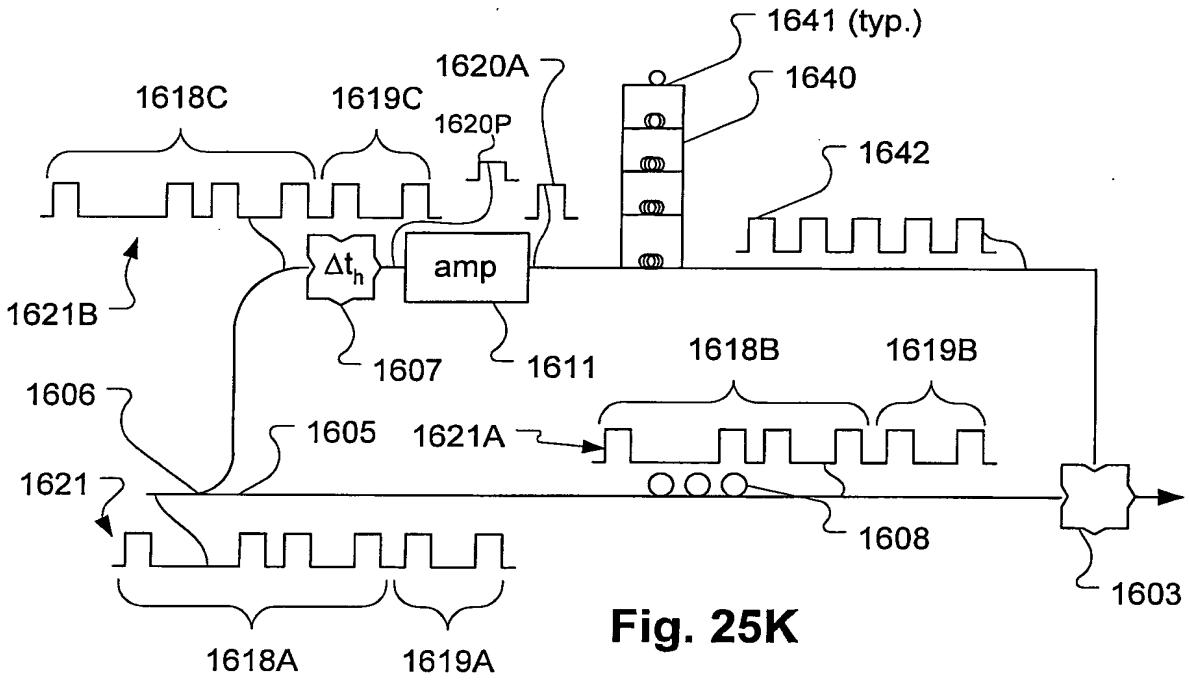


Fig. 25K

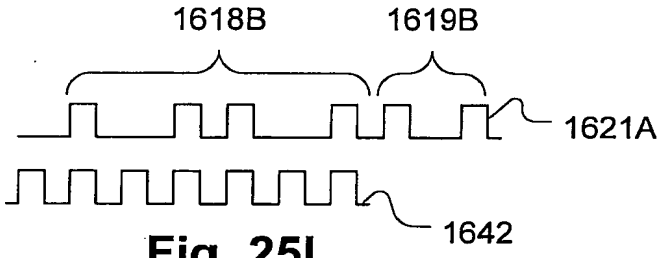


Fig. 25L

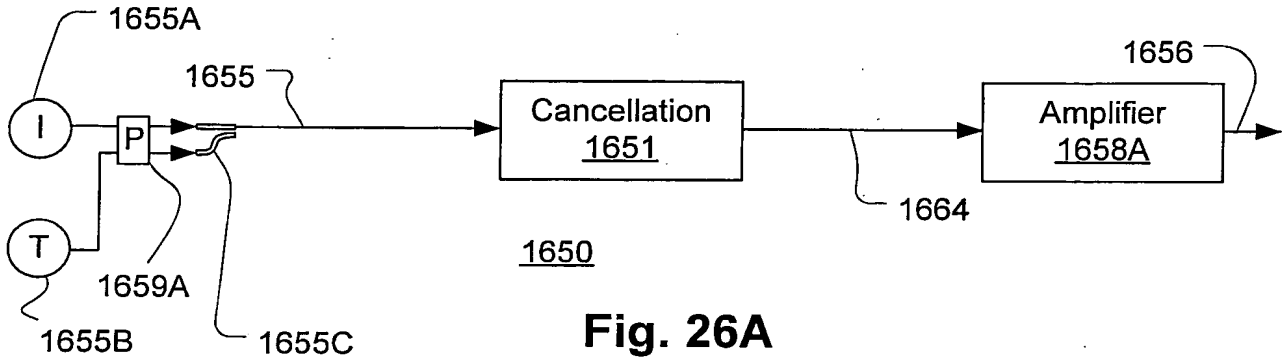


Fig. 26A

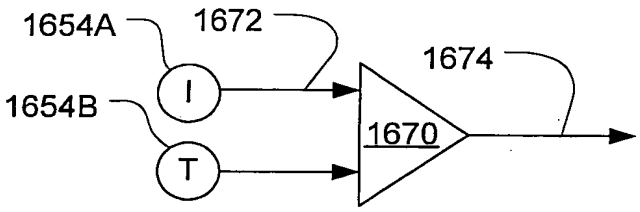


Fig. 26B

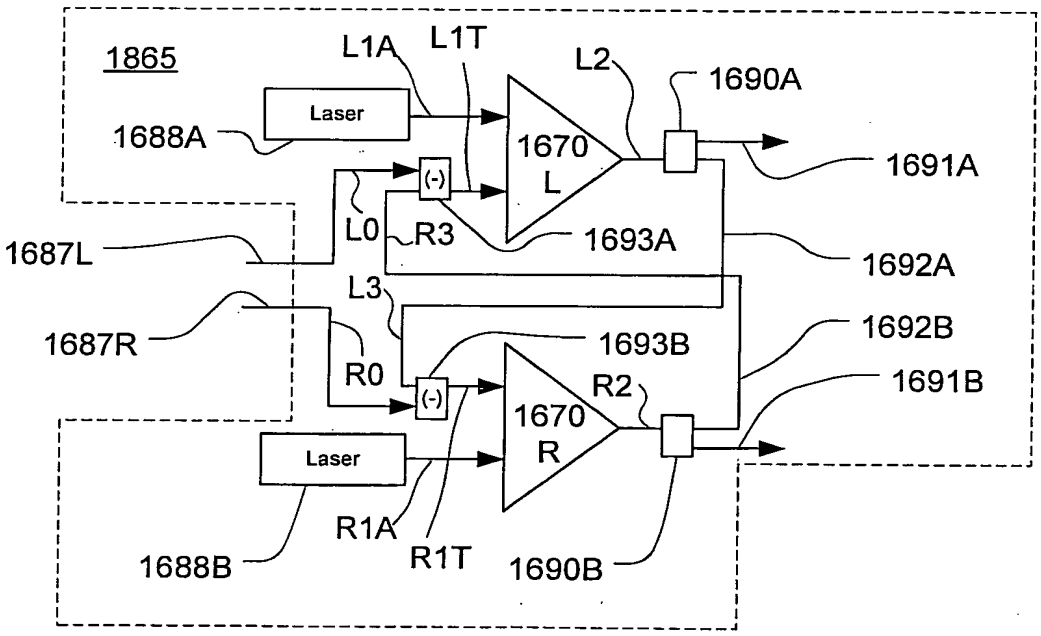


Fig. 27A

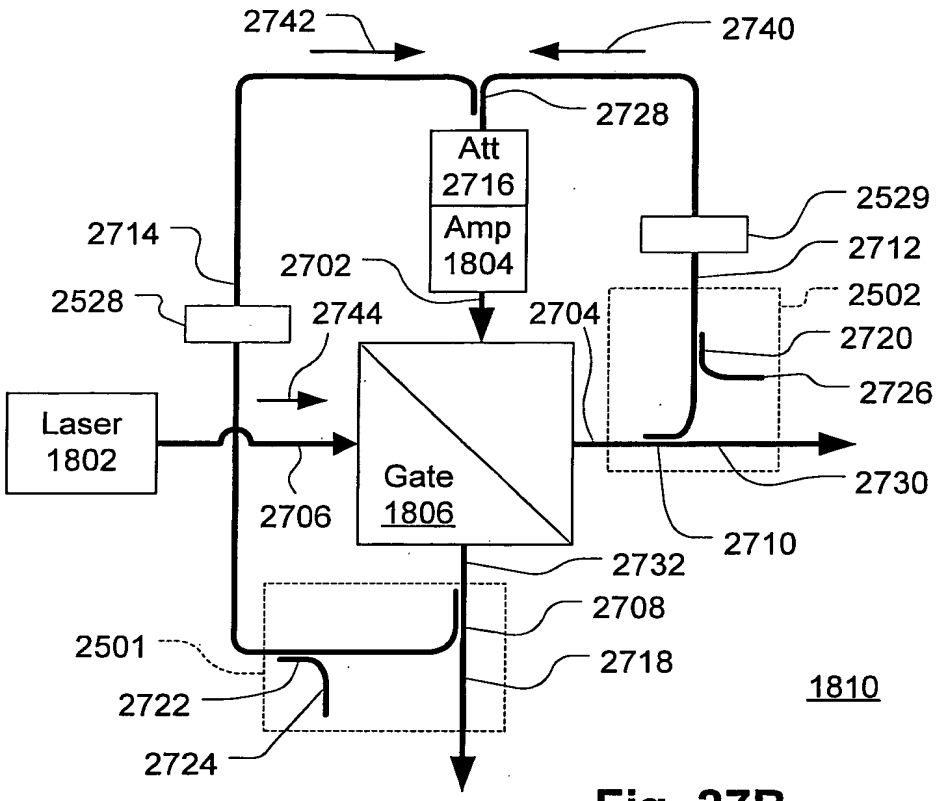


Fig. 27B

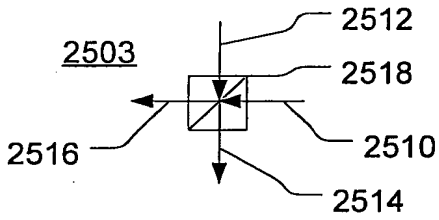


Fig. 27C

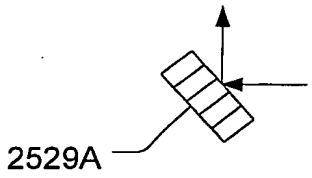


Fig. 27D

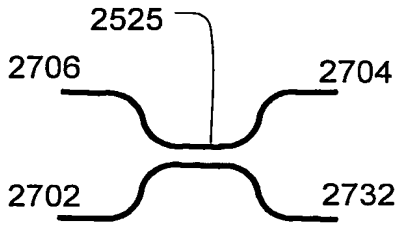


Fig. 27E

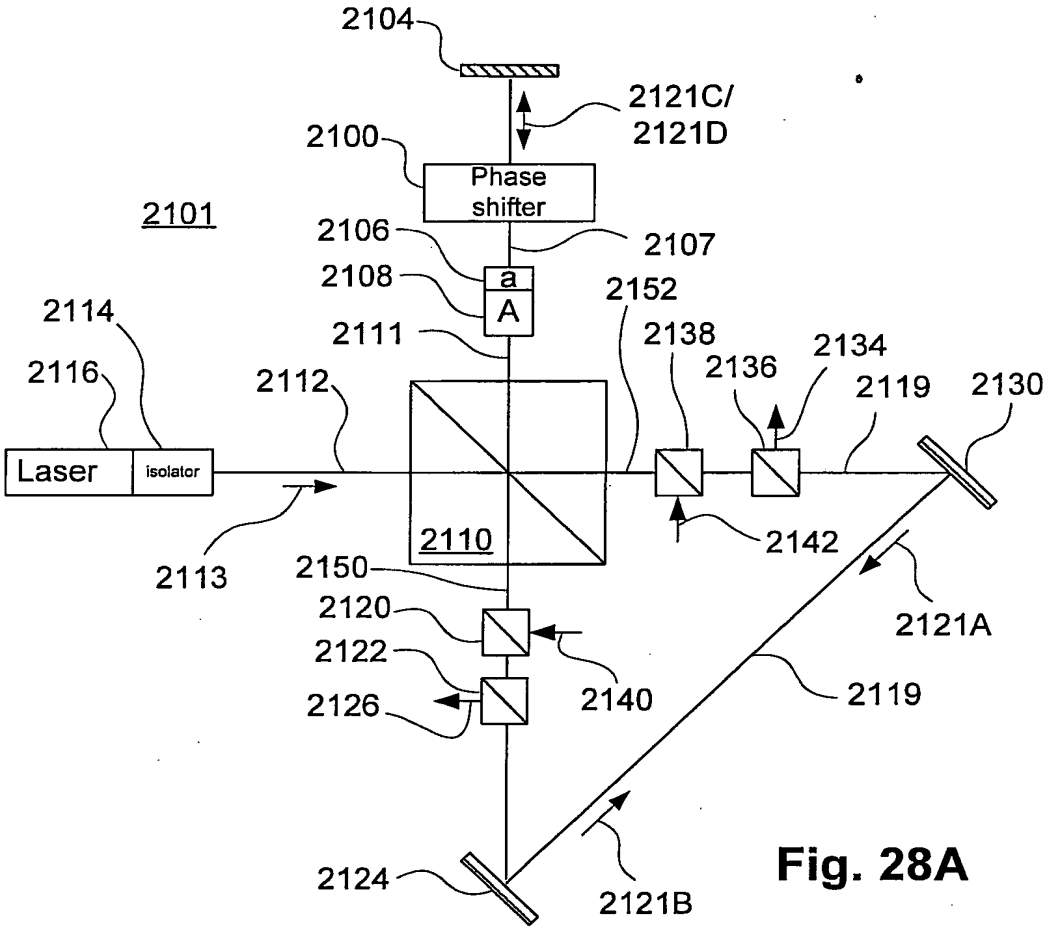


Fig. 28A

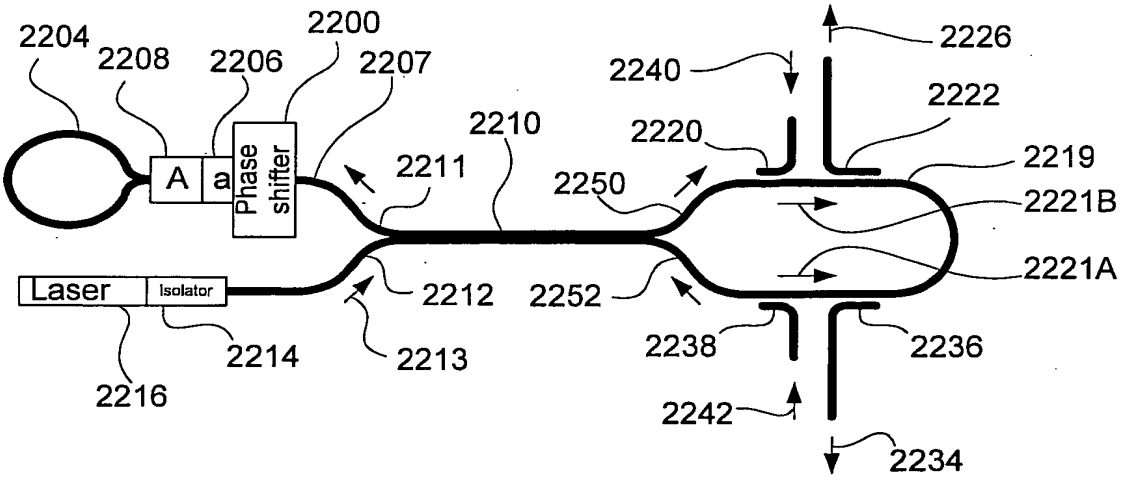


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Fig. 28B

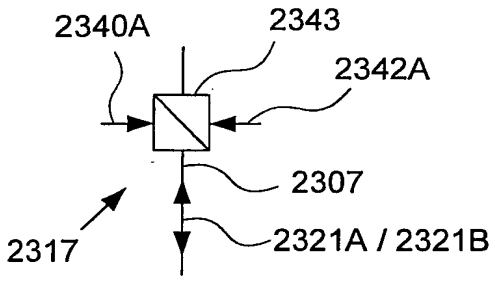

Fig. 28C

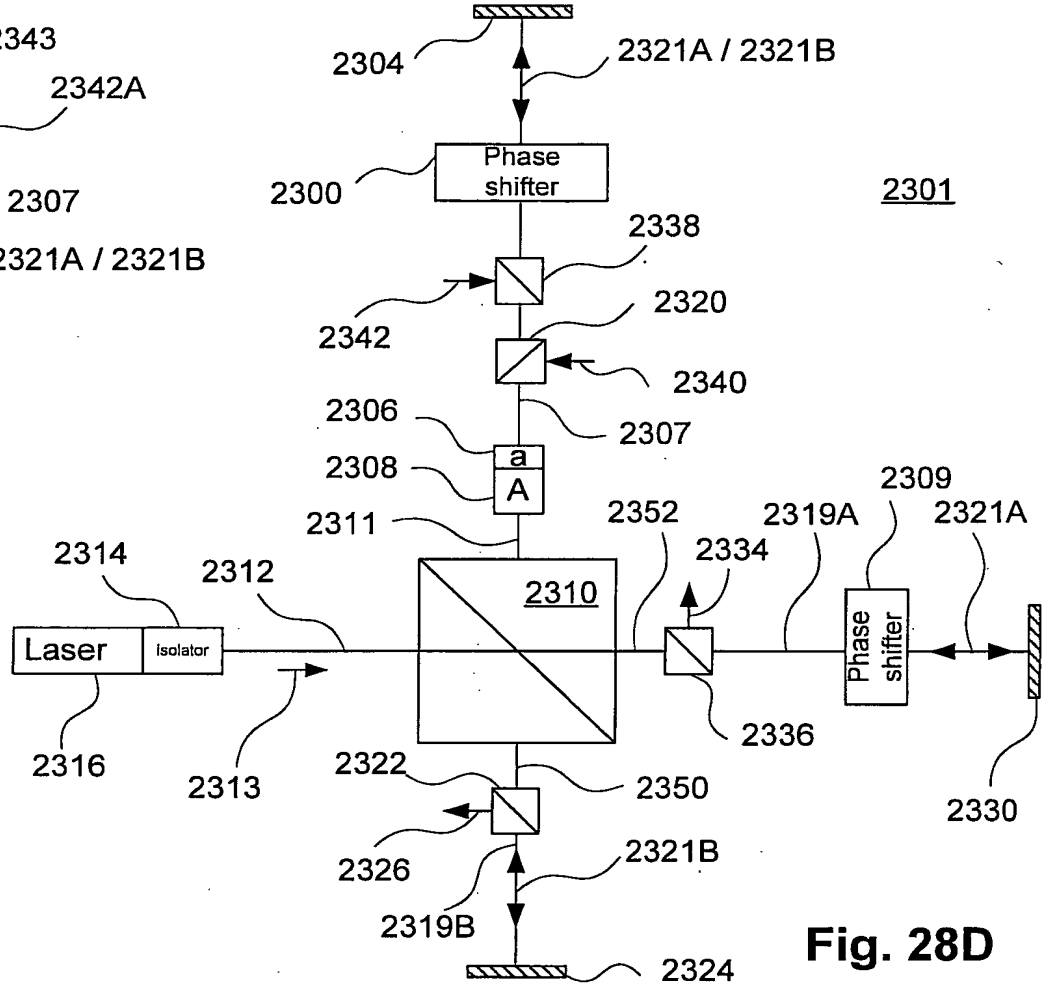

Fig. 28D

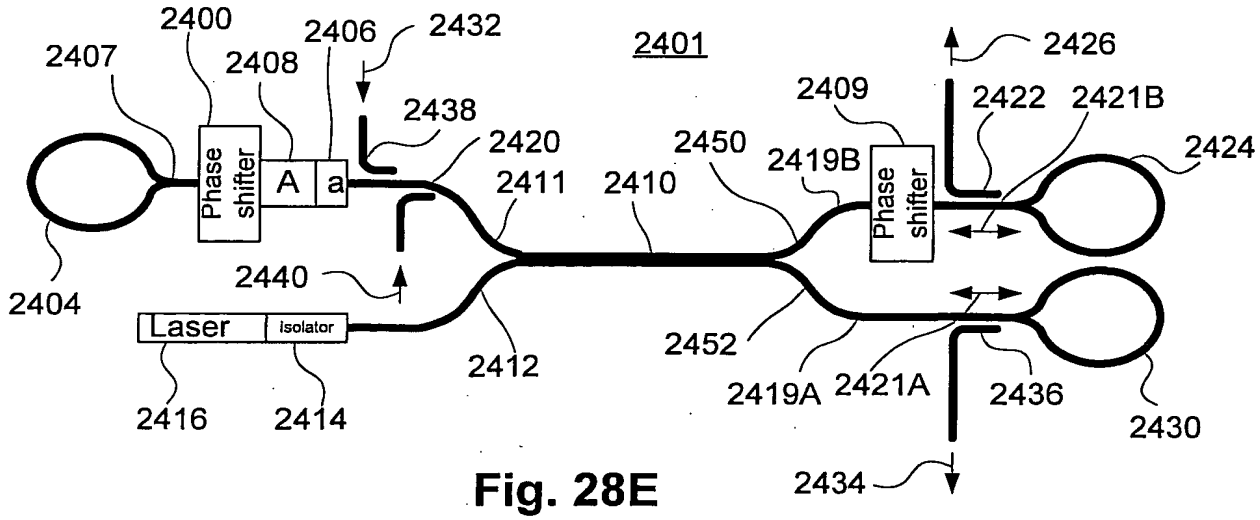

Fig. 28E

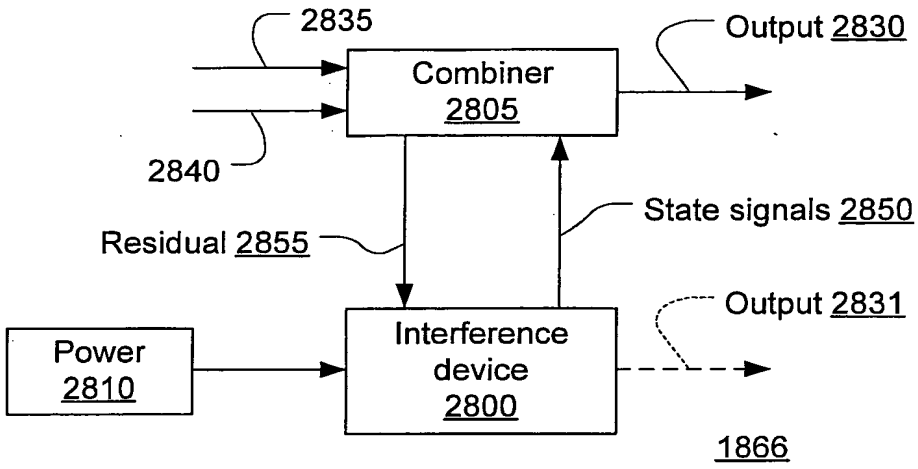

Fig. 29A

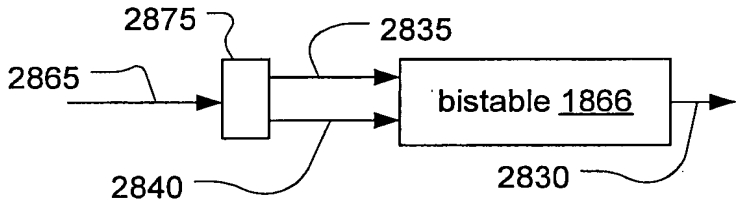

Fig. 29B

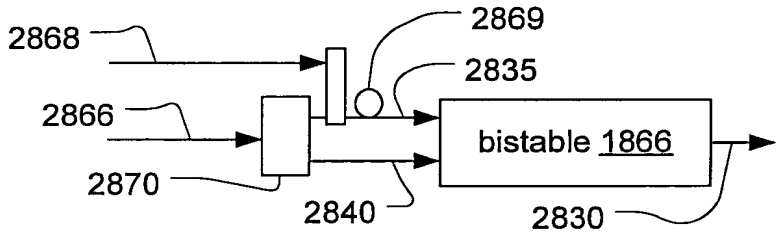

Fig. 29C

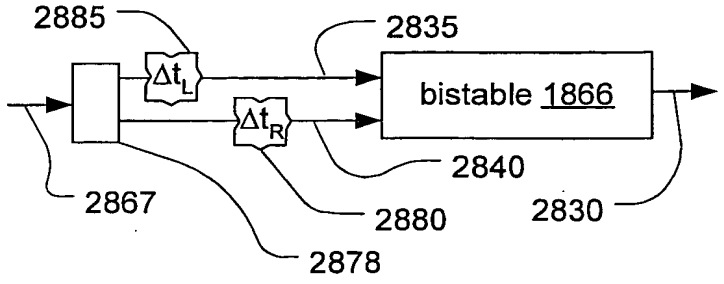

Fig. 29D

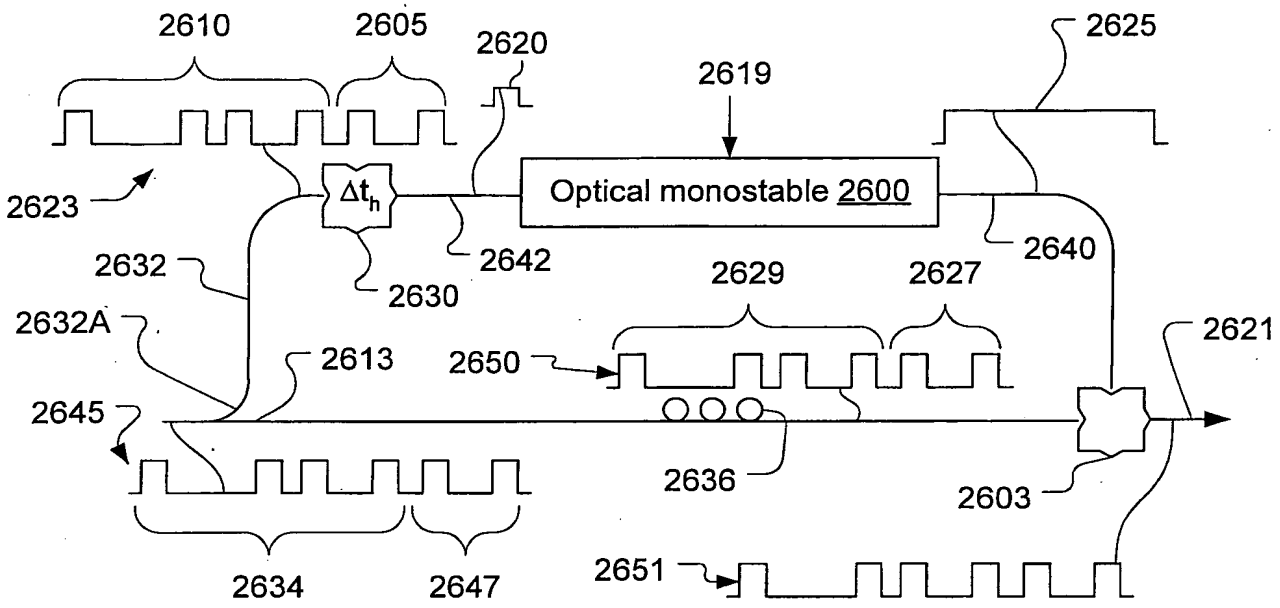

Fig. 30A

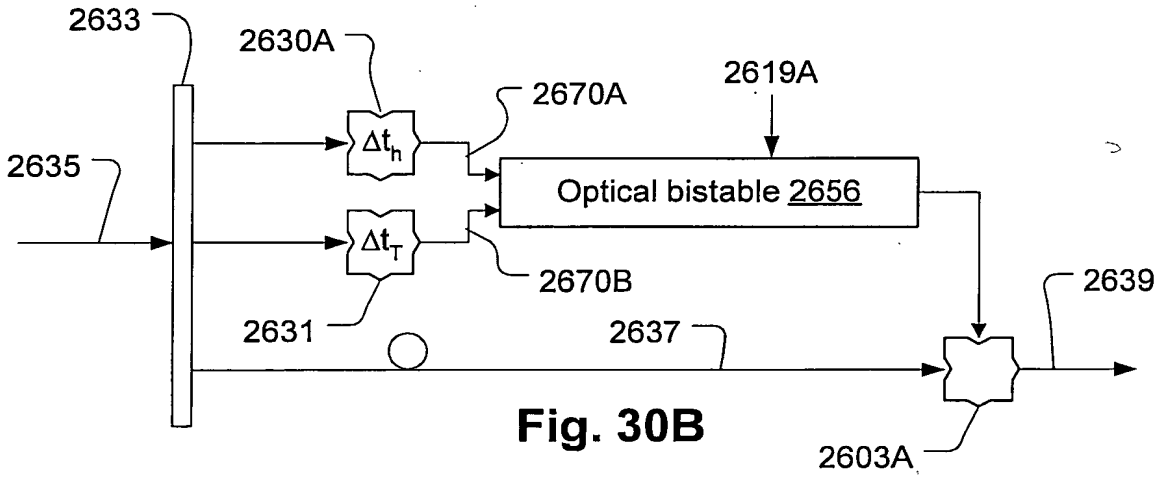

Fig. 30B

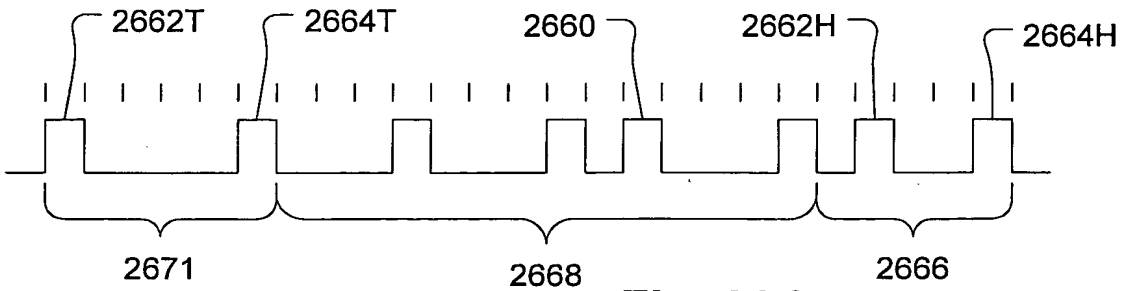

Fig. 30C

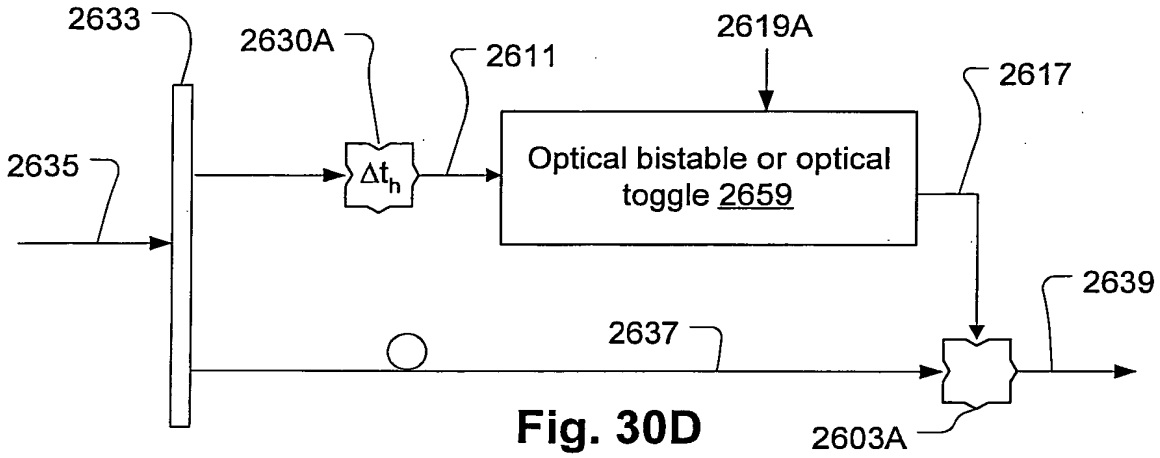

Fig. 30D

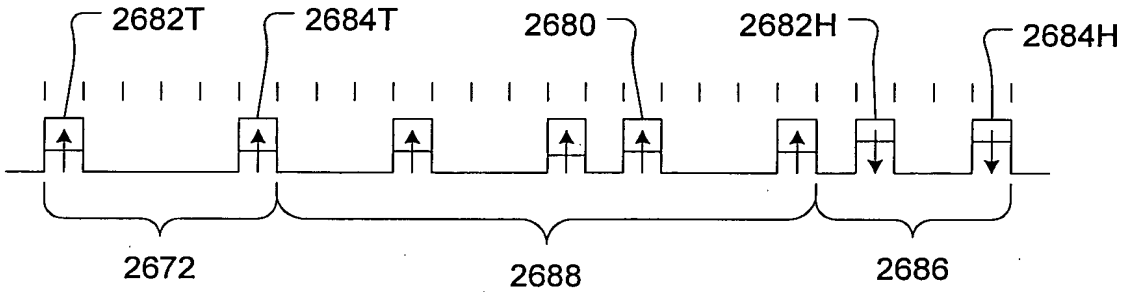

Fig. 30E

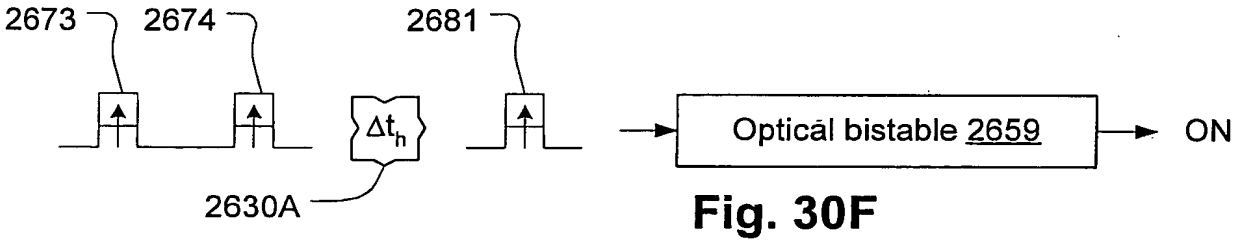

Fig. 30F

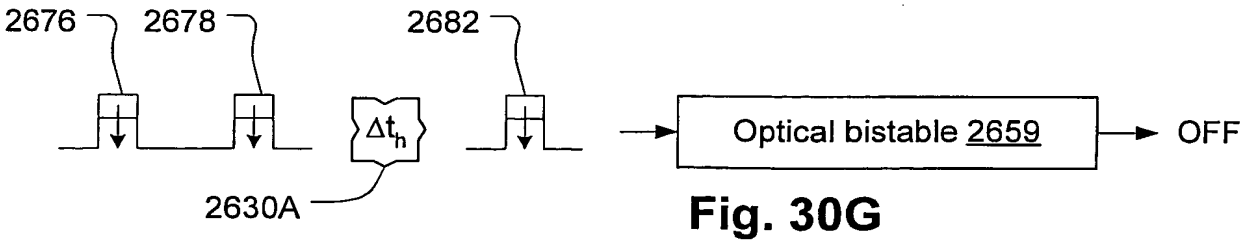

Fig. 30G